



September 20, 2012

Brad Davis  
Zia Engineering & Environmental  
755 S Telshor Blvd Ste F-201  
Las Cruces, NM 88011  
TEL: (575) 993-6824  
FAX (575) 532-1587  
RE: HELSTF Diesel Spill

Order No.: 1209022

Dear Brad Davis:

DHL Analytical received 6 sample(s) on 9/6/2012 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of DoD QSM Ver 4.2 and NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. This report shall not be reproduced except in full without the written approval of DHL Analytical, Inc. Thank you for using DHL Analytical.

Sincerely,

A handwritten signature in black ink that reads "John DuPont".

John DuPont  
General Manager

This report was performed under the accreditation of the State of Texas & DoD Laboratory  
Certification Number: T104704211-12-8 & DoD ELAP #ADE-1416 v2



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755 S. Telton Blvd. Ste. F-201  
 Las Cruces, NM 88011  
 575-532-1526 u  
 575-532-1581 f

## CHAIN OF CUSTODY RECORD

#1209022  
 1 / 1

PROJECT NO.		PROJECT NAME		NO. OF CONTAINERS	ANALYSIS REQUESTED							REMARKS
		HELSTF Diesel Spill			TOC	VOCs	DRC	Hexavalent Chromium	pH	Total Chromium		
SAMPLE/SIG NATURE		Bradley T. Davis										
01	DATE	TIME	SAMPLE ID	MATRIX	LAB NO.							
01	9-5-12	1035	HLSF-0154-DRW-016-0912	Water		10	X	X	X	X	X	
02	9-5-12	1035	HLSF-0154-DRW-016-0912-TB	Water		2		X				Trip Blank
03	9-5-12	1208	HLSF-0154-DRW-012-0912	Water		10	X	X	X	X	X	
04	9-5-12	1208	HLSF-0154-DRW-112-0912	Water		10	X	X	X	X	X	
05	9-5-12	1345	HLSF-0154-DRW-013-0912	Water		10	X	X	X	X	X	
06	9-5-12	1345	HLSF-0154-FB-001-0912	Water		3		X				field Blank
PROJECT INFORMATION		SAMPLES RECEIVED		(#)	1. RELINQUISHED BY: (SIG NATURE)		2. RELINQUISHED BY: (SIG NATURE)		3. RECEIVED BY LAB: (SIG NATURE)			
PROJECT MANAGER		TOTAL NO. OF CONTAINERS		(PRINTED NAME)	Bradley T. Davis		(PRINTED NAME)	Jdy				
Shipping ID No.		CHAIN OF CUSTODY SEALS		(PRINTED NAME)	Bradley T. Davis		(PRINTED NAME)	(COMPANY)				
Via:		GOOD CONDITION/CHILLED		(TIME/DATE)	Jdy		(TIME/DATE)	JDCark				
FedEX		CONFORMS TO RECORD		9/16/12	9/16/12		9/16/12	9/16/12				
SPECIAL INSTRUCTIONS/COMMENTS:												

PLEASE USE BALL POINT PEN

3 DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

From: (505) 532-1526  
Zia Engineering

Origin ID: LRUA

755 S. Telshor Blvd.  
Suite Q-201  
Las Cruces, NM 88011



Ship Date: 05SEP12  
ActWgt: 65.0 LB  
CAD: 102287640/NET3300

SHIP TO: (512) 388-8222

BILL SENDER

John Dupont  
DHL Analytical  
2300 DOUBLE CREEK DR

ROUND ROCK, TX 78664

Delivery Address Bar Code



Ref # FWSE-09-015 Task 34  
Invoice #  
PO # Brad Davis  
Dept #

THU - 06 SEP A1  
PRIORITY OVERNIGHT

TRK# 7988 9924 7293

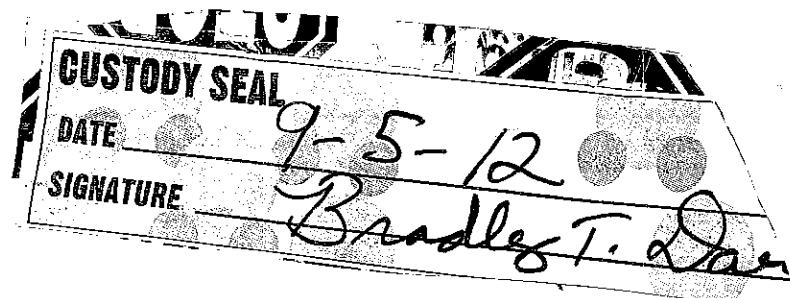
0201

78664

TX-US

AUS

XH BSMA



# DHL Analytical

## Sample Receipt Checklist

Client Name Zia Engineering & Environmental

Date Received: 9/6/2012

Work Order Number 1209022

Received by JB

Checklist completed by:

9/6/2012

Signature

Date

Reviewed by

9/6/2012

Initials

Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	0.5 °C
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Adjusted?

Checked by

Any No response must be detailed in the comments section below.

-----

Client contacted \_\_\_\_\_

Date contacted: \_\_\_\_\_

Person contacted \_\_\_\_\_

-----

Contacted by: \_\_\_\_\_

Regarding: \_\_\_\_\_

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Comments:

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Corrective Action \_\_\_\_\_

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# DHL Analytical, Inc.

## Laboratory Review Checklist: Reportable Data

Project Name: HELSTF Diesel Spill		Date: 9/20/12					
Reviewer Name: Carlos Castro		Laboratory Work Order: 1209022					
Prep Batch Number(s): See Prep Dates Report		Run Batch: See Analytical Dates Report					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
R1	OI	<b>Chain-of-Custody (C-O-C)</b> 1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? 2) Were all departures from standard conditions described in an exception report?	X				R1-01
R2	OI	<b>Sample and Quality Control (QC) Identification</b> 1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers? 2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	<b>Test Reports</b> 1) Were all samples prepared and analyzed within holding times? 2) Other than those results < MQL, were all other raw values bracketed by calibration standards? 3) Were calculations checked by a peer or supervisor? 4) Were all analyte identifications checked by a peer or supervisor? 5) Were sample quantitation limits reported for all analytes not detected? 6) Were all results for soil and sediment samples reported on a dry weight basis? 7) Were % moisture (or solids) reported for all soil and sediment samples? 8) If required for the project, TICs reported?	X				
R4	O	<b>Surrogate Recovery Data</b> 1) Were surrogates added prior to extraction? 2) Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	<b>Test Reports/Summary Forms for Blank Samples</b> 1) Were appropriate type(s) of blanks analyzed? 2) Were blanks analyzed at the appropriate frequency? 3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? 4) Were blank concentrations < MQL?	X				
R6	OI	<b>Laboratory Control Samples (LCS):</b> 1) Were all COCs included in the LCS? 2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps? 3) Were LCSs analyzed at the required frequency? 4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits? 5) Does the detectability data document the laboratory's capability to detect the COCs at te MDL used to calculate the SQLs? 6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data</b> 1) Were the project/method specified analytes included in the MS and MSD? 2) Were MS/MSD analyzed at the appropriate frequency? 3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits? 4) Were MS/MSD RPDs within laboratory QC limits?	X				R7-03
R8	OI	<b>Analytical Duplicate Data</b> 1) Were appropriate analytical duplicates analyzed for each matrix? 2) Were analytical duplicates analyzed at the appropriate frequency? 3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	<b>Method Quantitation Limits (MQLs):</b> 1) Are the MQLs for each method analyte included in the laboratory data package? 2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard? 3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	<b>Other Problems/Anomalies</b> 1) Are all known problems/anomalies/special conditions noted in this LRC and ER? 2) Were all necessary corrective actions performed for the reported data? 3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

**DHL Analytical, Inc.**
**Laboratory Review Checklist (continued): Supporting Data**

Project Name: HELSTF Diesel Spill		Date: 9/20/12				
Reviewer Name: Carlos Castro		Laboratory Work Order: 1209022				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>
S1	OI	<b>Initial Calibration (ICAL)</b>				
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X			
		2) Were percent RSDs or correlation coefficient criteria met?	X			
		3) Was the number of standards recommended in the method used for all analytes?	X			
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X			
		5) Are ICAL data available for all instruments used?	X			
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X			<b>S1-06</b>
S2	OI	<b>Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB)</b>				
		1) Was the CCV analyzed at the method-required frequency?	X			
		2) Were percent differences for each analyte within the method-required QC limits?		X		<b>S2-02</b>
		3) Was the ICAL curve verified for each analyte?	X			
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X			
S3	O	<b>Mass Spectral Tuning</b>				
		1) Was the appropriate compound for the method used for tuning?	X			
		2) Were ion abundance data within the method-required QC limits?	X			
S4	O	<b>Internal Standards (IS)</b>				
		1) Were IS area counts and retention times within the method-required QC limits?		X		<b>S4-01</b>
S5	OI	<b>Raw Data (NELAC section 1 appendix A glossary, and section 5.12)</b>				
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X			
		2) Were data associated with manual integrations flagged on the raw data?	X			
S6	O	<b>Dual Column Confirmation</b>				
		1) Did dual column confirmation results meet the method-required QC?			X	
S7	O	<b>Tentatively Identified Compounds (TICs)</b>				
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X	
S8	I	<b>Interference Check Sample (ICS) Results</b>				
		1) Were percent recoveries within method QC limits?	X			
S9	I	<b>Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions</b>				
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X			
S10	OI	<b>Method Detection Limit (MDL) Studies</b>				
		1) Was a MDL study performed for each reported analyte?	X			
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X			
S11	OI	<b>Proficiency Test Reports</b>				
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X			
S12	OI	<b>Standards Documentation</b>				
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X			
S13	OI	<b>Compound/Analyte Identification Procedures</b>				
		1) Are the procedures for compound/analyte identification documented?	X			
S14	OI	<b>Demonstration of Analyst Competency (DOC)</b>				
		1) Was DOC conducted consistent with NELAC Chapter 5C?	X			
		2) Is documentation of the analyst's competency up-to-date and on file?	X			
S15	OI	<b>Verification/Validation Documentation for Methods (NELAC Chap 5)</b>				
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X			
S16	OI	<b>Laboratory Standard Operating Procedures (SOPs)</b>				
		1) Are laboratory SOPs current and on file for each method performed?	X			

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Data Package Signature Page

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

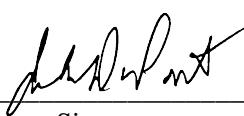
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

**Release Statement:** I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

John DuPont – General Manager

Scott Schroeder – Technical Director

  
\_\_\_\_\_  
Signature

09/20/12

\_\_\_\_\_  
Date

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Lab Order:** 1209022

**CASE NARRATIVE**

This case narrative describes abnormalities and deviations that may affect the results and summarizes all known issues that need to be highlighted for the data user to assess the results. This case narrative and the report contents are compliant with DoD QSM Ver 4.2 and NELAC.

Samples were analyzed using the methods outlined in the following references:

Method SW6020 - Metals Analysis  
Method M8015D - DRO Analysis  
Method SW8260C - Volatile Organics  
Method M4500-H+ B - pH of a Water  
Method M5310C - TOC Analysis  
Method M3500-Cr D - Hexavalent Chromium Analysis

**Exception Report R1-01**

The samples were received on and log-in performed on 9/6/12. A total of 6 samples were received and all were analyzed. The samples arrived in good condition and were properly packaged.

**Exception Report R4-02**

For DRO analysis performed on 9/9/12 the surrogate recoveries for samples HLSF-0154-DRW-012-0912 and HLSF-0154-DRW-112-0912 were slightly below control limits for Isopropylbenzene. These are flagged accordingly. The remaining surrogate was within control limits. No further corrective actions were taken.

**Exception Report R7-03**

For Volatiles analysis performed on 9/10/12 the matrix spike and matrix spike duplicate recoveries were below control limits for 2-Chloroethylvinylether. These are flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate was not from this work order. The LCS was within control limits for this compound. No further corrective actions were taken.

**Exception Report S1-06**

For Volatiles analysis, the recovery of Bromomethane for the Second Source Calibration Verification was below the method control limits. No further corrective actions were taken.

**Exception Report S2-02**

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**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Lab Order:** 1209022

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## CASE NARRATIVE

For Volatiles analysis, the recoveries of two compounds for the Initial Calibration Verification (ICV-120910) were above the method control limits specified in SW8260C (80-120% recovery). These are flagged accordingly in the QC summary report. These compounds were within the method control limits in the associated LCS. No further corrective actions were taken.

Exception Report S4-01

For Metals analysis the matrix spike, matrix spike duplicate, serial dilution, PDS CCV1-120913 and CCV2-120914 had high responses for the internal standard Scandium(1). The associated analyte (Chromium) were within control limits. In addition, CCB2-120914 had a high response for the internal standard Scandium(1). The associated analyte (Chromium) was below detection limits. No further corrective actions were taken.

A summary of project communication follows:

DHL Analytical received the Project RFQ from the client on 12/29/09. Completed RFQ returned to client via email on 1/07/2010. Purchase Order/Terms and Conditions received and signed and approved by both parties on 01/25/2010.

Brad Davis of Zia requested a bottle kit via email from Jennifer Barker of DHL on 7/27/12.

DHL Bottle kit #3501 sent on 8/13/12 via Lonestar Overnight, to arrive by 8/15/12.

This sample delivery group arrived at DHL Analytical 9/6/12. Sample summary sent via email from Log-in to client on 9/6/12.

All hardcopies for the sample kit request, bill of lading for sample kit sent and login summary are kept in project folder.

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Lab Order:** 1209022

**Work Order Sample Summary**

<b>Lab Smp ID</b>	<b>Client Sample ID</b>	<b>Tag Number</b>	<b>Date Collected</b>	<b>Date Recved</b>
1209022-01	HLSF-0154-DRW-016-0912		09/05/12 10:35 AM	9/6/2012
1209022-02	HLSF-0154-DRW-016-0912-TB		09/05/12 10:35 AM	9/6/2012
1209022-03	HLSF-0154-DRW-012-0912		09/05/12 12:08 PM	9/6/2012
1209022-04	HLSF-0154-DRW-112-0912		09/05/12 12:08 PM	9/6/2012
1209022-05	HLSF-0154-DRW-013-0912		09/05/12 01:45 PM	9/6/2012
1209022-06	HLSF-0154-FB-001-0912		09/05/12 01:45 PM	9/6/2012

**Lab Order:** 1209022  
**Client:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill

## PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1209022-01A	HLSF-0154-DRW-016-0912	09/05/12 10:35 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	09/10/12 10:15 AM	53759
1209022-01B	HLSF-0154-DRW-016-0912	09/05/12 10:35 AM	Aqueous	M5310C	TOC prep Aqueous	09/19/12 09:58 AM	53818
1209022-01C	HLSF-0154-DRW-016-0912	09/05/12 10:35 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/12/12 08:54 AM	53793
1209022-01D	HLSF-0154-DRW-016-0912	09/05/12 10:35 AM	Aqueous	SW7196A	Hexachrom Prep Water	09/06/12 08:35 AM	53695
	HLSF-0154-DRW-016-0912	09/05/12 10:35 AM	Aqueous	M4500-H+ B	pH Preparation	09/06/12 09:45 AM	53717
1209022-01E	HLSF-0154-DRW-016-0912	09/05/12 10:35 AM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	09/07/12 08:43 AM	53724
1209022-02A	HLSF-0154-DRW-016-0912-TB	09/05/12 10:35 AM	Trip Blank	SW5030C	Purge and Trap Water GC/MS	09/10/12 10:15 AM	53759
1209022-03A	HLSF-0154-DRW-012-0912	09/05/12 12:08 PM	Aqueous	SW5030C	Purge and Trap Water GC/MS	09/10/12 10:15 AM	53759
1209022-03B	HLSF-0154-DRW-012-0912	09/05/12 12:08 PM	Aqueous	M5310C	TOC prep Aqueous	09/19/12 09:58 AM	53818
1209022-03C	HLSF-0154-DRW-012-0912	09/05/12 12:08 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/12/12 08:54 AM	53793
	HLSF-0154-DRW-012-0912	09/05/12 12:08 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/12/12 08:54 AM	53793
1209022-03D	HLSF-0154-DRW-012-0912	09/05/12 12:08 PM	Aqueous	SW7196A	Hexachrom Prep Water	09/06/12 08:35 AM	53695
	HLSF-0154-DRW-012-0912	09/05/12 12:08 PM	Aqueous	M4500-H+ B	pH Preparation	09/06/12 09:45 AM	53717
1209022-03E	HLSF-0154-DRW-012-0912	09/05/12 12:08 PM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	09/07/12 08:43 AM	53724
1209022-04A	HLSF-0154-DRW-112-0912	09/05/12 12:08 PM	Aqueous	SW5030C	Purge and Trap Water GC/MS	09/10/12 10:15 AM	53759
1209022-04B	HLSF-0154-DRW-112-0912	09/05/12 12:08 PM	Aqueous	M5310C	TOC prep Aqueous	09/19/12 09:58 AM	53818
1209022-04C	HLSF-0154-DRW-112-0912	09/05/12 12:08 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/12/12 08:54 AM	53793
	HLSF-0154-DRW-112-0912	09/05/12 12:08 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/12/12 08:54 AM	53793
1209022-04D	HLSF-0154-DRW-112-0912	09/05/12 12:08 PM	Aqueous	SW7196A	Hexachrom Prep Water	09/06/12 08:35 AM	53695
	HLSF-0154-DRW-112-0912	09/05/12 12:08 PM	Aqueous	M4500-H+ B	pH Preparation	09/06/12 09:45 AM	53717

**Lab Order:** 1209022  
**Client:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill

## PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1209022-04E	HLSF-0154-DRW-112-0912	09/05/12 12:08 PM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	09/07/12 08:43 AM	53724
1209022-05A	HLSF-0154-DRW-013-0912	09/05/12 01:45 PM	Aqueous	SW5030C	Purge and Trap Water GC/MS	09/10/12 10:15 AM	53759
1209022-05B	HLSF-0154-DRW-013-0912	09/05/12 01:45 PM	Aqueous	M5310C	TOC prep Aqueous	09/19/12 09:58 AM	53818
1209022-05C	HLSF-0154-DRW-013-0912	09/05/12 01:45 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/12/12 08:54 AM	53793
	HLSF-0154-DRW-013-0912	09/05/12 01:45 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/12/12 08:54 AM	53793
1209022-05D	HLSF-0154-DRW-013-0912	09/05/12 01:45 PM	Aqueous	SW7196A	Hexachrom Prep Water	09/06/12 08:35 AM	53695
	HLSF-0154-DRW-013-0912	09/05/12 01:45 PM	Aqueous	M4500-H+ B	pH Preparation	09/06/12 09:45 AM	53717
1209022-05E	HLSF-0154-DRW-013-0912	09/05/12 01:45 PM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	09/07/12 08:43 AM	53724
1209022-06A	HLSF-0154-FB-001-0912	09/05/12 01:45 PM	Field Blank	SW5030C	Purge and Trap Water GC/MS	09/10/12 10:15 AM	53759

**Lab Order:** 1209022  
**Client:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill

## ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1209022-01A	HLSF-0154-DRW-016-0912	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	53759	1	09/10/12 03:11 PM	GCMS5_120910A
1209022-01B	HLSF-0154-DRW-016-0912	Aqueous	M5310C	Total Organic Carbon	53818	2	09/19/12 11:58 AM	TOC_120919A
1209022-01C	HLSF-0154-DRW-016-0912	Aqueous	SW6020	Trace Metals: ICP-MS - Water	53793	50	09/13/12 03:06 PM	ICP-MS2_120913C
1209022-01D	HLSF-0154-DRW-016-0912	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	53695	1	09/06/12 10:28 AM	UV/VIS_2_120906A
	HLSF-0154-DRW-016-0912	Aqueous	M4500-H+ B	pH	53717	1	09/06/12 09:58 AM	TITRATOR_120906A
1209022-01E	HLSF-0154-DRW-016-0912	Aqueous	M8015D	TPH Extractable by GC - Water	53724	1	09/09/12 08:43 PM	GC15_120909A
1209022-02A	HLSF-0154-DRW-016-0912-TB	Trip Blank	SW8260C	8260 Water Volatiles by GC/MS	53759	1	09/10/12 03:36 PM	GCMS5_120910A
1209022-03A	HLSF-0154-DRW-012-0912	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	53759	1	09/10/12 04:01 PM	GCMS5_120910A
1209022-03B	HLSF-0154-DRW-012-0912	Aqueous	M5310C	Total Organic Carbon	53818	2	09/19/12 12:24 PM	TOC_120919A
1209022-03C	HLSF-0154-DRW-012-0912	Aqueous	SW6020	Trace Metals: ICP-MS - Water	53793	1	09/13/12 03:12 PM	ICP-MS2_120913C
	HLSF-0154-DRW-012-0912	Aqueous	SW6020	Trace Metals: ICP-MS - Water	53793	50	09/14/12 02:38 PM	ICP-MS3_120914A
1209022-03D	HLSF-0154-DRW-012-0912	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	53695	1	09/06/12 10:29 AM	UV/VIS_2_120906A
	HLSF-0154-DRW-012-0912	Aqueous	M4500-H+ B	pH	53717	1	09/06/12 10:02 AM	TITRATOR_120906A
1209022-03E	HLSF-0154-DRW-012-0912	Aqueous	M8015D	TPH Extractable by GC - Water	53724	1	09/09/12 08:51 PM	GC15_120909A
1209022-04A	HLSF-0154-DRW-112-0912	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	53759	1	09/10/12 04:25 PM	GCMS5_120910A
1209022-04B	HLSF-0154-DRW-112-0912	Aqueous	M5310C	Total Organic Carbon	53818	2	09/19/12 12:50 PM	TOC_120919A
1209022-04C	HLSF-0154-DRW-112-0912	Aqueous	SW6020	Trace Metals: ICP-MS - Water	53793	1	09/13/12 03:18 PM	ICP-MS2_120913C
	HLSF-0154-DRW-112-0912	Aqueous	SW6020	Trace Metals: ICP-MS - Water	53793	50	09/14/12 02:44 PM	ICP-MS3_120914A
1209022-04D	HLSF-0154-DRW-112-0912	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	53695	1	09/06/12 10:29 AM	UV/VIS_2_120906A
	HLSF-0154-DRW-112-0912	Aqueous	M4500-H+ B	pH	53717	1	09/06/12 10:03 AM	TITRATOR_120906A

**Lab Order:** 1209022  
**Client:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill

## ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1209022-04E	HLSF-0154-DRW-112-0912	Aqueous	M8015D	TPH Extractable by GC - Water	53724	1	09/09/12 09:00 PM	GC15_120909A
1209022-05A	HLSF-0154-DRW-013-0912	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	53759	1	09/10/12 04:51 PM	GCMS5_120910A
1209022-05B	HLSF-0154-DRW-013-0912	Aqueous	M5310C	Total Organic Carbon	53818	2	09/19/12 01:12 PM	TOC_120919A
1209022-05C	HLSF-0154-DRW-013-0912	Aqueous	SW6020	Trace Metals: ICP-MS - Water	53793	1	09/13/12 03:23 PM	ICP-MS2_120913C
	HLSF-0154-DRW-013-0912	Aqueous	SW6020	Trace Metals: ICP-MS - Water	53793	5	09/14/12 02:49 PM	ICP-MS3_120914A
1209022-05D	HLSF-0154-DRW-013-0912	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	53695	1	09/06/12 10:29 AM	UV/VIS_2_120906A
	HLSF-0154-DRW-013-0912	Aqueous	M4500-H+ B	pH	53717	1	09/06/12 10:04 AM	TITRATOR_120906A
1209022-05E	HLSF-0154-DRW-013-0912	Aqueous	M8015D	TPH Extractable by GC - Water	53724	1	09/09/12 09:36 PM	GC15_120909A
1209022-06A	HLSF-0154-FB-001-0912	Field Blank	SW8260C	8260 Water Volatiles by GC/MS	53759	1	09/10/12 05:16 PM	GCMS5_120910A

# DHL Analytical

Date: 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-016-0912  
**Lab ID:** 1209022-01  
**Collection Date:** 09/05/12 10:35 AM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>TPH EXTRACTABLE BY GC - WATER</b>							
TPH-DRO C10-C28	<0.0500	0.0500	0.100		mg/L	1	09/09/12 08:43 PM
Surr: Isopropylbenzene	55.5	0	47-142	%REC	1		09/09/12 08:43 PM
Surr: Octacosane	113	0	51-124	%REC	1		09/09/12 08:43 PM
<b>TRACE METALS: ICP-MS - WATER</b>							
Chromium	23.1	0.100	0.300		mg/L	50	09/13/12 03:06 PM
<b>8260 WATER VOLATILES BY GC/MS</b>							
		<b>SW8260C</b>					Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,1-Dichloroethane	0.00127	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,1-Dichloroethene	0.00357	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 03:11 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 03:11 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 03:11 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	09/10/12 03:11 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 03:11 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	09/10/12 03:11 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:11 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:11 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:11 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:11 PM
Acetone	0.0122	0.00500	0.0150	J	mg/L	1	09/10/12 03:11 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	09/10/12 03:11 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
C Sample Result or QC discussed in the Case Narrative  
E TPH pattern not Gas or Diesel Range Pattern  
MDL Method Detection Limit  
RL Reporting Limit  
N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
DF Dilution Factor  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
S Spike Recovery outside control limits

# DHL Analytical

Date: 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-016-0912  
**Lab ID:** 1209022-01  
**Collection Date:** 09/05/12 10:35 AM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:11 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
Chloroform	0.000770	0.000300	0.00100	J	mg/L	1	09/10/12 03:11 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:11 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 03:11 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	09/10/12 03:11 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:11 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 03:11 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 03:11 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Trichloroethene	0.0597	0.000600	0.00200		mg/L	1	09/10/12 03:11 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:11 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	09/10/12 03:11 PM
Surr: 1,2-Dichloroethane-d4	92.8	0	70-120	%REC	1	09/10/12 03:11 PM	
Surr: 4-Bromofluorobenzene	93.8	0	75-120	%REC	1	09/10/12 03:11 PM	

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
 C Sample Result or QC discussed in the Case Narrative  
 E TPH pattern not Gas or Diesel Range Pattern  
 MDL Method Detection Limit  
 RL Reporting Limit  
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 S Spike Recovery outside control limits

**DHL Analytical****Date:** 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-016-0912  
**Lab ID:** 1209022-01  
**Collection Date:** 09/05/12 10:35 AM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>				<b>SW8260C</b>			Analyst: <b>KL</b>
Surr: Dibromofluoromethane	94.2	0	85-115		%REC	1	09/10/12 03:11 PM
Surr: Toluene-d8	91.4	0	85-120		%REC	1	09/10/12 03:11 PM
<b>HEXAVALENT CHROMIUM-WATER</b>				<b>M3500-CR D</b>			Analyst: <b>LM</b>
Hexavalent Chromium	0.184	0.00800	0.0100		mg/L	1	09/06/12 10:28 AM
<b>PH</b>				<b>M4500-H+ B</b>			Analyst: <b>JBC</b>
pH	7.45	0	0		pH Units	1	09/06/12 09:58 AM
<b>TOTAL ORGANIC CARBON</b>				<b>M5310C</b>			Analyst: <b>JCG</b>
Total Organic Carbon	1.33	0.600	2.00	J	mg/L	2	09/19/12 11:58 AM

<b>Qualifiers:</b>	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit		ND	Not Detected at the Method Detection Limit
RL	Reporting Limit		S	Spike Recovery outside control limits
N	Parameter not NELAC certified			

# DHL Analytical

Date: 20-Sep-12

CLIENT: Zia Engineering & Environmental  
Project: HELSTF Diesel Spill  
Project No:  
Lab Order: 1209022

Client Sample ID: HLSF-0154-DRW-016-0912-TB  
Lab ID: 1209022-02  
Collection Date: 09/05/12 10:35 AM  
Matrix: TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,1-Dichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 03:36 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 03:36 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 03:36 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	09/10/12 03:36 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 03:36 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	09/10/12 03:36 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:36 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:36 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:36 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:36 PM
Acetone	0.00568	0.00500	0.0150	J	mg/L	1	09/10/12 03:36 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	09/10/12 03:36 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:36 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM

Qualifiers: \* Value exceeds TCLP Maximum Concentration Level  
C Sample Result or QC discussed in the Case Narrative  
E TPH pattern not Gas or Diesel Range Pattern  
MDL Method Detection Limit  
RL Reporting Limit  
N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
DF Dilution Factor  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
S Spike Recovery outside control limits

# DHL Analytical

Date: 20-Sep-12

<b>CLIENT:</b>	Zia Engineering & Environmental	<b>Client Sample ID:</b>	HLSF-0154-DRW-016-0912-TB
<b>Project:</b>	HELSTF Diesel Spill	<b>Lab ID:</b>	1209022-02
<b>Project No:</b>	<b>Collection Date:</b> 09/05/12 10:35 AM		
<b>Lab Order:</b>	<b>Matrix:</b> TRIP BLANK		

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
Chloroform	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 03:36 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 03:36 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	09/10/12 03:36 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 03:36 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 03:36 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 03:36 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Trichloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 03:36 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 03:36 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	09/10/12 03:36 PM
Surr: 1,2-Dichloroethane-d4	92.0	0	70-120	%REC	1	09/10/12 03:36 PM	
Surr: 4-Bromofluorobenzene	96.6	0	75-120	%REC	1	09/10/12 03:36 PM	
Surr: Dibromofluoromethane	93.8	0	85-115	%REC	1	09/10/12 03:36 PM	
Surr: Toluene-d8	89.8	0	85-120	%REC	1	09/10/12 03:36 PM	

**Qualifiers:**

- \* Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
DF Dilution Factor  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
S Spike Recovery outside control limits

# DHL Analytical

Date: 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-012-0912  
**Lab ID:** 1209022-03  
**Collection Date:** 09/05/12 12:08 PM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>TPH EXTRACTABLE BY GC - WATER</b>							
TPH-DRO C10-C28	0.0510	0.0500	0.100	J	mg/L	1	09/09/12 08:51 PM
Surr: Isopropylbenzene	44.2	0	47-142	S	%REC	1	09/09/12 08:51 PM
Surr: Octacosane	94.5	0	51-124		%REC	1	09/09/12 08:51 PM
<b>TRACE METALS: ICP-MS - WATER</b>							
Chromium	1.78	0.100	0.300		mg/L	50	09/14/12 02:38 PM
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,1-Dichloroethane	0.00124	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:01 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:01 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:01 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	09/10/12 04:01 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:01 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	09/10/12 04:01 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:01 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:01 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:01 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:01 PM
Acetone	0.00855	0.00500	0.0150	J	mg/L	1	09/10/12 04:01 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	09/10/12 04:01 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
C Sample Result or QC discussed in the Case Narrative  
E TPH pattern not Gas or Diesel Range Pattern  
MDL Method Detection Limit  
RL Reporting Limit  
N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
DF Dilution Factor  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
S Spike Recovery outside control limits

# DHL Analytical

Date: 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-012-0912  
**Lab ID:** 1209022-03  
**Collection Date:** 09/05/12 12:08 PM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:01 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
Chloroform	0.000330	0.000300	0.00100	J	mg/L	1	09/10/12 04:01 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:01 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 04:01 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	09/10/12 04:01 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:01 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 04:01 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 04:01 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Trichloroethene	0.00785	0.000600	0.00200		mg/L	1	09/10/12 04:01 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:01 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	09/10/12 04:01 PM
Surr: 1,2-Dichloroethane-d4	93.8	0	70-120	%REC	1	09/10/12 04:01 PM	
Surr: 4-Bromofluorobenzene	94.5	0	75-120	%REC	1	09/10/12 04:01 PM	

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
 C Sample Result or QC discussed in the Case Narrative  
 E TPH pattern not Gas or Diesel Range Pattern  
 MDL Method Detection Limit  
 RL Reporting Limit  
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 S Spike Recovery outside control limits

**DHL Analytical****Date:** 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-012-0912  
**Lab ID:** 1209022-03  
**Collection Date:** 09/05/12 12:08 PM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>				<b>SW8260C</b>			Analyst: <b>KL</b>
Surr: Dibromofluoromethane	93.7	0	85-115		%REC	1	09/10/12 04:01 PM
Surr: Toluene-d8	91.4	0	85-120		%REC	1	09/10/12 04:01 PM
<b>HEXAVALENT CHROMIUM-WATER</b>				<b>M3500-CR D</b>			Analyst: <b>LM</b>
Hexavalent Chromium	<0.00800	0.00800	0.0100		mg/L	1	09/06/12 10:29 AM
<b>PH</b>				<b>M4500-H+ B</b>			Analyst: <b>JBC</b>
pH	7.27	0	0		pH Units	1	09/06/12 10:02 AM
<b>TOTAL ORGANIC CARBON</b>				<b>M5310C</b>			Analyst: <b>JCG</b>
Total Organic Carbon	1.56	0.600	2.00	J	mg/L	2	09/19/12 12:24 PM

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
 C Sample Result or QC discussed in the Case Narrative  
 E TPH pattern not Gas or Diesel Range Pattern  
 MDL Method Detection Limit  
 RL Reporting Limit  
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 S Spike Recovery outside control limits

**DHL Analytical****Date:** 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-112-0912  
**Lab ID:** 1209022-04  
**Collection Date:** 09/05/12 12:08 PM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>TPH EXTRACTABLE BY GC - WATER</b>							
TPH-DRO C10-C28	0.0561	0.0500	0.100	J	mg/L	1	09/09/12 09:00 PM
Surr: Isopropylbenzene	44.9	0	47-142	S	%REC	1	09/09/12 09:00 PM
Surr: Octacosane	95.1	0	51-124		%REC	1	09/09/12 09:00 PM
<b>TRACE METALS: ICP-MS - WATER</b>							
Chromium	1.87	0.100	0.300		mg/L	50	09/14/12 02:44 PM
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,1-Dichloroethane	0.00124	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:25 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:25 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:25 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	09/10/12 04:25 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:25 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	09/10/12 04:25 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:25 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:25 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:25 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:25 PM
Acetone	0.00822	0.00500	0.0150	J	mg/L	1	09/10/12 04:25 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	09/10/12 04:25 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
 C Sample Result or QC discussed in the Case Narrative  
 E TPH pattern not Gas or Diesel Range Pattern  
 MDL Method Detection Limit  
 RL Reporting Limit  
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 S Spike Recovery outside control limits

# DHL Analytical

Date: 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-112-0912  
**Lab ID:** 1209022-04  
**Collection Date:** 09/05/12 12:08 PM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:25 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
Chloroform	0.000320	0.000300	0.00100	J	mg/L	1	09/10/12 04:25 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:25 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 04:25 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	09/10/12 04:25 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:25 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 04:25 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 04:25 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Trichloroethene	0.00782	0.000600	0.00200		mg/L	1	09/10/12 04:25 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:25 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	09/10/12 04:25 PM
Surr: 1,2-Dichloroethane-d4	93.8	0	70-120	%REC	1	09/10/12 04:25 PM	
Surr: 4-Bromofluorobenzene	96.3	0	75-120	%REC	1	09/10/12 04:25 PM	

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
 C Sample Result or QC discussed in the Case Narrative  
 E TPH pattern not Gas or Diesel Range Pattern  
 MDL Method Detection Limit  
 RL Reporting Limit  
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 S Spike Recovery outside control limits

**DHL Analytical****Date:** 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-112-0912  
**Lab ID:** 1209022-04  
**Collection Date:** 09/05/12 12:08 PM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>				<b>SW8260C</b>			Analyst: <b>KL</b>
Surr: Dibromofluoromethane	94.9	0	85-115		%REC	1	09/10/12 04:25 PM
Surr: Toluene-d8	91.7	0	85-120		%REC	1	09/10/12 04:25 PM
<b>HEXAVALENT CHROMIUM-WATER</b>				<b>M3500-CR D</b>			Analyst: <b>LM</b>
Hexavalent Chromium	<0.00800	0.00800	0.0100		mg/L	1	09/06/12 10:29 AM
<b>PH</b>				<b>M4500-H+ B</b>			Analyst: <b>JBC</b>
pH	7.27	0	0		pH Units	1	09/06/12 10:03 AM
<b>TOTAL ORGANIC CARBON</b>				<b>M5310C</b>			Analyst: <b>JCG</b>
Total Organic Carbon	1.31	0.600	2.00	J	mg/L	2	09/19/12 12:50 PM

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
 C Sample Result or QC discussed in the Case Narrative  
 E TPH pattern not Gas or Diesel Range Pattern  
 MDL Method Detection Limit  
 RL Reporting Limit  
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 S Spike Recovery outside control limits

# DHL Analytical

Date: 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-013-0912  
**Lab ID:** 1209022-05  
**Collection Date:** 09/05/12 01:45 PM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>TPH EXTRACTABLE BY GC - WATER</b>							
TPH-DRO C10-C28	0.0569	0.0500	0.100	J	mg/L	1	09/09/12 09:36 PM
Surr: Isopropylbenzene	48.1	0	47-142	%REC	%REC	1	09/09/12 09:36 PM
Surr: Octacosane	101	0	51-124	%REC	%REC	1	09/09/12 09:36 PM
<b>TRACE METALS: ICP-MS - WATER</b>							
Chromium	0.0292	0.0100	0.0300	J	mg/L	5	09/14/12 02:49 PM
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,1-Dichloroethane	0.00130	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:51 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:51 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:51 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	09/10/12 04:51 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 04:51 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	09/10/12 04:51 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:51 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:51 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:51 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:51 PM
Acetone	0.0116	0.00500	0.0150	J	mg/L	1	09/10/12 04:51 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	09/10/12 04:51 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
C Sample Result or QC discussed in the Case Narrative  
E TPH pattern not Gas or Diesel Range Pattern  
MDL Method Detection Limit  
RL Reporting Limit  
N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
DF Dilution Factor  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
S Spike Recovery outside control limits

# DHL Analytical

Date: 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-013-0912  
**Lab ID:** 1209022-05  
**Collection Date:** 09/05/12 01:45 PM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:51 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
Chloroform	0.00214	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 04:51 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 04:51 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	09/10/12 04:51 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 04:51 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 04:51 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 04:51 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Trichloroethene	0.00495	0.000600	0.00200		mg/L	1	09/10/12 04:51 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 04:51 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	09/10/12 04:51 PM
Surr: 1,2-Dichloroethane-d4	93.3	0	70-120	%REC	1	09/10/12 04:51 PM	
Surr: 4-Bromofluorobenzene	96.2	0	75-120	%REC	1	09/10/12 04:51 PM	

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
 C Sample Result or QC discussed in the Case Narrative  
 E TPH pattern not Gas or Diesel Range Pattern  
 MDL Method Detection Limit  
 RL Reporting Limit  
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 S Spike Recovery outside control limits

**DHL Analytical****Date:** 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-DRW-013-0912  
**Lab ID:** 1209022-05  
**Collection Date:** 09/05/12 01:45 PM  
**Matrix:** AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>				<b>SW8260C</b>			Analyst: <b>KL</b>
Surr: Dibromofluoromethane	95.0	0	85-115		%REC	1	09/10/12 04:51 PM
Surr: Toluene-d8	90.8	0	85-120		%REC	1	09/10/12 04:51 PM
<b>HEXAVALENT CHROMIUM-WATER</b>				<b>M3500-CR D</b>			Analyst: <b>LM</b>
Hexavalent Chromium	<0.00800	0.00800	0.0100		mg/L	1	09/06/12 10:29 AM
<b>PH</b>				<b>M4500-H+ B</b>			Analyst: <b>JBC</b>
pH	7.34	0	0		pH Units	1	09/06/12 10:04 AM
<b>TOTAL ORGANIC CARBON</b>				<b>M5310C</b>			Analyst: <b>JCG</b>
Total Organic Carbon	0.759	0.600	2.00	J	mg/L	2	09/19/12 01:12 PM

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
 C Sample Result or QC discussed in the Case Narrative  
 E TPH pattern not Gas or Diesel Range Pattern  
 MDL Method Detection Limit  
 RL Reporting Limit  
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 S Spike Recovery outside control limits

**DHL Analytical****Date:** 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-FB-001-0912  
**Lab ID:** 1209022-06  
**Collection Date:** 09/05/12 01:45 PM  
**Matrix:** FIELD BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>							
		<b>SW8260C</b>					Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,1-Dichloroethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 05:16 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 05:16 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 05:16 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	09/10/12 05:16 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/10/12 05:16 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	09/10/12 05:16 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 05:16 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 05:16 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 05:16 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 05:16 PM
Acetone	0.0171	0.00500	0.0150		mg/L	1	09/10/12 05:16 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	09/10/12 05:16 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 05:16 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
 C Sample Result or QC discussed in the Case Narrative  
 E TPH pattern not Gas or Diesel Range Pattern  
 MDL Method Detection Limit  
 RL Reporting Limit  
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 S Spike Recovery outside control limits

# DHL Analytical

Date: 20-Sep-12

**CLIENT:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill  
**Project No:**  
**Lab Order:** 1209022

**Client Sample ID:** HLSF-0154-FB-001-0912  
**Lab ID:** 1209022-06  
**Collection Date:** 09/05/12 01:45 PM  
**Matrix:** FIELD BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>							
				<b>SW8260C</b>			Analyst: KL
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
Chloroform	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	09/10/12 05:16 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 05:16 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	09/10/12 05:16 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/10/12 05:16 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 05:16 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 05:16 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Trichloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/10/12 05:16 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	09/10/12 05:16 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	09/10/12 05:16 PM
Surr: 1,2-Dichloroethane-d4	91.9	0	70-120	%REC	1	09/10/12 05:16 PM	
Surr: 4-Bromofluorobenzene	94.4	0	75-120	%REC	1	09/10/12 05:16 PM	
Surr: Dibromofluoromethane	93.9	0	85-115	%REC	1	09/10/12 05:16 PM	
Surr: Toluene-d8	91.0	0	85-120	%REC	1	09/10/12 05:16 PM	

**Qualifiers:** \* Value exceeds TCLP Maximum Concentration Level  
C Sample Result or QC discussed in the Case Narrative  
E TPH pattern not Gas or Diesel Range Pattern  
MDL Method Detection Limit  
RL Reporting Limit  
N Parameter not NELAC certified

B Analyte detected in the associated Method Blank  
DF Dilution Factor  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
S Spike Recovery outside control limits

**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

**ANALYTICAL QC SUMMARY REPORT****RunID: GC15\_120909A**

The QC data in batch 53724 applies to the following samples: 1209022-01E, 1209022-03E, 1209022-04E, 1209022-05E

Sample ID: LCS-53724	Batch ID: 53724	TestNo: M8015D	Units: mg/L						
SampType: LCS	Run ID: GC15_120909A	Analysis Date: 9/9/2012 7:31:12 PM	Prep Date: 9/7/2012						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
TPH-DRO C10-C28	1.06	0.100	1.250	0	85.0	50	114		
Surr: Isopropylbenzene	0.0494		0.1000		49.4	47	142		
Surr: Octacosane	0.101		0.1000		101	51	124		
Sample ID: MB-53724	Batch ID: 53724	TestNo: M8015D	Units: mg/L						
SampType: MBLK	Run ID: GC15_120909A	Analysis Date: 9/9/2012 8:07:08 PM	Prep Date: 9/7/2012						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
TPH-DRO C10-C28	<0.0800	0.100							
Surr: Isopropylbenzene	0.0596		0.1000		59.6	47	142		
Surr: Octacosane	0.112		0.1000		112	51	124		
Sample ID: 1209014-01HMS	Batch ID: 53724	TestNo: M8015D	Units: mg/L						
SampType: MS	Run ID: GC15_120909A	Analysis Date: 9/9/2012 11:42:24 PM	Prep Date: 9/7/2012						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
TPH-DRO C10-C28	1.08	0.100	1.250	0	86.6	50	114		
Surr: Isopropylbenzene	0.0608		0.1000		60.8	47	142		
Surr: Octacosane	0.113		0.1000		113	51	124		
Sample ID: 1209014-01HMSD	Batch ID: 53724	TestNo: M8015D	Units: mg/L						
SampType: MSD	Run ID: GC15_120909A	Analysis Date: 9/9/2012 11:51:21 PM	Prep Date: 9/7/2012						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
TPH-DRO C10-C28	1.14	0.100	1.250	0	91.4	50	114	5.37	30
Surr: Isopropylbenzene	0.0578		0.1000		57.8	47	142	0	0
Surr: Octacosane	0.108		0.1000		108	51	124	0	0

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GC15\_120909A

Sample ID: <b>ICV-120909</b>	Batch ID: <b>R62452</b>	TestNo: <b>M8015D</b>	Units: <b>mg/L</b>
SampType: <b>ICV</b>	Run ID: <b>GC15_120909A</b>	Analysis Date: <b>9/9/2012 7:19:02 PM</b>	Prep Date:
<hr/>			
<b>Analyte</b>			
TPH-DRO C10-C28	Result	RL	SPK value
Surr: Isopropylbenzene	532	0.100	500.0
	24.1		25.00
Surr: Octacosane	27.8		25.00
			106
			80
			120
			96.6
			80
			120
			111
			80
			120
<hr/>			
Sample ID: <b>CCV1-120909</b>	Batch ID: <b>R62452</b>	TestNo: <b>M8015D</b>	Units: <b>mg/L</b>
SampType: <b>CCV</b>	Run ID: <b>GC15_120909A</b>	Analysis Date: <b>9/9/2012 9:18:52 PM</b>	Prep Date:
<hr/>			
<b>Analyte</b>			
TPH-DRO C10-C28	Result	RL	SPK value
Surr: Isopropylbenzene	264	0.100	250.0
	11.9		12.50
Surr: Octacosane	13.9		12.50
			106
			80
			120
			95.2
			80
			120
			111
			80
			120
<hr/>			
Sample ID: <b>CCV2-120909</b>	Batch ID: <b>R62452</b>	TestNo: <b>M8015D</b>	Units: <b>mg/L</b>
SampType: <b>CCV</b>	Run ID: <b>GC15_120909A</b>	Analysis Date: <b>9/9/2012 11:15:31 PM</b>	Prep Date:
<hr/>			
<b>Analyte</b>			
TPH-DRO C10-C28	Result	RL	SPK value
Surr: Isopropylbenzene	252	0.100	250.0
	12.3		12.50
Surr: Octacosane	14.4		12.50
			101
			80
			120
			98.2
			80
			120
			115
			80
			120
<hr/>			
Sample ID: <b>CCV3-120909</b>	Batch ID: <b>R62452</b>	TestNo: <b>M8015D</b>	Units: <b>mg/L</b>
SampType: <b>CCV</b>	Run ID: <b>GC15_120909A</b>	Analysis Date: <b>9/10/2012 12:00:22 AM</b>	Prep Date:
<hr/>			
<b>Analyte</b>			
TPH-DRO C10-C28	Result	RL	SPK value
Surr: Isopropylbenzene	268	0.100	250.0
	13.0		12.50
Surr: Octacosane	14.6		12.50
			107
			80
			120
			104
			80
			120
			117
			80
			120

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS2\_120913C

The QC data in batch 53793 applies to the following samples: 1209022-01C, 1209022-03C, 1209022-04C, 1209022-05C

Sample ID: MB-53793	Batch ID: 53793	TestNo: SW6020	Units: mg/L							
SampType: MBLK	Run ID: ICP-MS2_120913C	Analysis Date: 9/13/2012 1:36:00 PM	Prep Date: 9/12/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	<0.00200	0.00600								
Sample ID: LCS-53793	Batch ID: 53793	TestNo: SW6020	Units: mg/L							
SampType: LCS	Run ID: ICP-MS2_120913C	Analysis Date: 9/13/2012 2:30:00 PM	Prep Date: 9/12/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.205	0.00600	0.200	0	103	80	120			
Sample ID: LCSD-53793	Batch ID: 53793	TestNo: SW6020	Units: mg/L							
SampType: LCSD	Run ID: ICP-MS2_120913C	Analysis Date: 9/13/2012 2:36:00 PM	Prep Date: 9/12/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.199	0.00600	0.200	0	99.4	80	120	3.22	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS2\_120913C

Sample ID: ICV1-120913	Batch ID: R62552	TestNo:	SW6020	Units:	mg/L					
SampType: ICV	Run ID: ICP-MS2_120913C	Analysis Date: 9/13/2012 1:02:00 PM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.102	0.00600	0.100	0	102	90	110			
Sample ID: CCV1-120913	Batch ID: R62552	TestNo:	SW6020	Units:	mg/L					
SampType: CCV	Run ID: ICP-MS2_120913C	Analysis Date: 9/13/2012 4:05:00 PM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.191	0.00600	0.200	0	95.4	90	110			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS3\_120914A

The QC data in batch 53793 applies to the following samples: 1209022-01C, 1209022-03C, 1209022-04C, 1209022-05C

Sample ID: 1209014-01D SD	Batch ID: 53793	TestNo: SW6020	Units: mg/L							
SampType: SD	Run ID: ICP-MS3_120914A	Analysis Date: 9/14/2012 2:33:00 PM	Prep Date: 9/12/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.0372	0.0300	0	0.0348		6.59	10			
Sample ID: 1209014-01D PDS	Batch ID: 53793	TestNo: SW6020	Units: mg/L							
SampType: PDS	Run ID: ICP-MS3_120914A	Analysis Date: 9/14/2012 3:01:00 PM	Prep Date: 9/12/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.205	0.00600	0.200	0.0348	85.1	75	125			
Sample ID: 1209014-01D MS	Batch ID: 53793	TestNo: SW6020	Units: mg/L							
SampType: MS	Run ID: ICP-MS3_120914A	Analysis Date: 9/14/2012 3:06:00 PM	Prep Date: 9/12/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.202	0.00600	0.200	0.0348	83.6	80	120			
Sample ID: 1209014-01D MSD	Batch ID: 53793	TestNo: SW6020	Units: mg/L							
SampType: MSD	Run ID: ICP-MS3_120914A	Analysis Date: 9/14/2012 3:19:00 PM	Prep Date: 9/12/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.197	0.00600	0.200	0.0348	81.3	80	120	2.35	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS3\_120914A

Sample ID: ICV1-120914	Batch ID: R62568	TestNo: SW6020	Units: mg/L							
SampType: ICV	Run ID: ICP-MS3_120914A	Analysis Date: 9/14/2012 12:15:00 PM	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.0996	0.00600	0.100	0	99.6	90	110			
Sample ID: CCV1-120914	Batch ID: R62568	TestNo: SW6020	Units: mg/L							
SampType: CCV	Run ID: ICP-MS3_120914A	Analysis Date: 9/14/2012 1:51:00 PM	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.193	0.00600	0.200	0	96.3	90	110			
Sample ID: CCV2-120914	Batch ID: R62568	TestNo: SW6020	Units: mg/L							
SampType: CCV	Run ID: ICP-MS3_120914A	Analysis Date: 9/14/2012 3:31:00 PM	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.193	0.00600	0.200	0	96.4	90	110			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

The QC data in batch 53759 applies to the following samples: 1209022-01A, 1209022-02A, 1209022-03A, 1209022-04A, 1209022-05A, 1209022-06A

Sample ID: LCS-53759	Batch ID: 53759	TestNo: SW8260C	Units: mg/L							
SampType: LCS	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 10:35:00 AM	Prep Date: 9/10/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0225	0.00100	0.0232	0	96.8	80	130			
1,1,1-Trichloroethane	0.0233	0.00100	0.0232	0	100	65	130			
1,1,2,2-Tetrachloroethane	0.0232	0.00100	0.0232	0	100	65	130			
1,1,2-Trichloroethane	0.0236	0.00100	0.0232	0	102	75	125			
1,1-Dichloroethane	0.0231	0.00100	0.0232	0	99.4	70	135			
1,1-Dichloroethene	0.0237	0.00100	0.0232	0	102	70	130			
1,1-Dichloropropene	0.0244	0.00100	0.0232	0	105	75	130			
1,2,3-Trichlorobenzene	0.0227	0.00500	0.0232	0	97.9	55	140			
1,2,3-Trichloropropane	0.0222	0.00100	0.0232	0	95.7	75	125			
1,2,4-Trichlorobenzene	0.0225	0.00500	0.0232	0	97.0	65	135			
1,2,4-Trimethylbenzene	0.0239	0.00500	0.0232	0	103	75	130			
1,2-Dibromo-3-chloropropane	0.0224	0.0100	0.0232	0	96.6	50	130			
1,2-Dibromoethane	0.0232	0.00100	0.0232	0	100	80	120			
1,2-Dichlorobenzene	0.0235	0.00100	0.0232	0	101	70	120			
1,2-Dichloroethane	0.0226	0.00100	0.0232	0	97.5	70	130			
1,2-Dichloropropane	0.0238	0.00100	0.0232	0	103	75	125			
1,3,5-Trimethylbenzene	0.0232	0.00500	0.0232	0	99.8	75	130			
1,3-Dichlorobenzene	0.0235	0.00100	0.0232	0	101	75	125			
1,3-Dichloropropane	0.0224	0.00100	0.0232	0	96.6	75	125			
1,4-Dichloro-2-butene	0.0297	0.00200	0.0232	0	128	50	150			
1,4-Dichlorobenzene	0.0221	0.00100	0.0232	0	95.4	75	125			
2,2-Dichloropropane	0.0273	0.00100	0.0232	0	118	70	135			
2-Butanone	0.0250	0.0150	0.0232	0	108	30	150			
2-Chloroethylvinylether	0.0244	0.0150	0.0232	0	105	50	150			
2-Chlorotoluene	0.0227	0.00100	0.0232	0	97.8	75	125			
2-Hexanone	0.0233	0.0150	0.0232	0	101	55	130			
4-Chlorotoluene	0.0231	0.00100	0.0232	0	99.6	75	130			
4-Methyl-2-pentanone	0.0231	0.0150	0.0232	0	99.6	60	135			
Acetone	0.0258	0.0150	0.0232	0	111	40	140			
Acrylonitrile	0.0457	0.00300	0.0464	0	98.5	50	150			
Benzene	0.0234	0.00100	0.0232	0	101	80	120			
Bromobenzene	0.0226	0.00100	0.0232	0	97.3	75	125			
Bromochloromethane	0.0238	0.00100	0.0232	0	103	65	130			
Bromodichloromethane	0.0232	0.00100	0.0232	0	100	75	120			
Bromoform	0.0241	0.00100	0.0232	0	104	70	130			
Bromomethane	0.0202	0.00100	0.0232	0	87.2	30	145			
Carbon disulfide	0.0192	0.0150	0.0232	0	83.0	35	160			
Carbon tetrachloride	0.0233	0.00100	0.0232	0	100	65	140			
Chlorobenzene	0.0222	0.00100	0.0232	0	95.7	80	120			
Chloroethane	0.0171	0.00100	0.0232	0	73.7	60	135			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

Sample ID: LCS-53759	Batch ID: 53759	TestNo: SW8260C	Units: mg/L							
SampType: LCS	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 10:35:00 AM Prep Date: 9/10/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloroform	0.0227	0.00100	0.0232	0	98.0	65	135			
Chloromethane	0.0206	0.00100	0.0232	0	88.8	40	125			
cis-1,2-Dichloroethene	0.0238	0.00100	0.0232	0	103	70	125			
cis-1,3-Dichloropropene	0.0248	0.00100	0.0232	0	107	70	130			
Dibromochloromethane	0.0227	0.00100	0.0232	0	97.9	60	135			
Dibromomethane	0.0234	0.00100	0.0232	0	101	75	125			
Dichlorodifluoromethane	0.0218	0.00100	0.0232	0	94.1	30	155			
Ethylbenzene	0.0228	0.00100	0.0232	0	98.4	75	125			
Iodomethane	0.0205	0.0150	0.0232	0	88.3	50	150			
Isopropylbenzene	0.0222	0.00100	0.0232	0	95.8	75	125			
m,p-Xylene	0.0467	0.00200	0.0464	0	101	75	130			
Methyl tert-butyl ether	0.0258	0.00100	0.0232	0	111	65	125			
Methylene chloride	0.0239	0.00250	0.0232	0	103	55	140			
n-Butylbenzene	0.0242	0.00100	0.0232	0	104	70	135			
n-Propylbenzene	0.0223	0.00100	0.0232	0	96.1	70	130			
o-Xylene	0.0223	0.00100	0.0232	0	96.0	80	120			
p-Isopropyltoluene	0.0246	0.00100	0.0232	0	106	75	130			
sec-Butylbenzene	0.0236	0.00100	0.0232	0	102	70	125			
Styrene	0.0241	0.00100	0.0232	0	104	65	135			
tert-Butylbenzene	0.0240	0.00100	0.0232	0	103	70	130			
Tetrachloroethene	0.0233	0.00200	0.0232	0	100	45	150			
Toluene	0.0233	0.00200	0.0232	0	101	75	120			
trans-1,2-Dichloroethene	0.0239	0.00100	0.0232	0	103	60	140			
trans-1,3-Dichloropropene	0.0248	0.00100	0.0232	0	107	55	140			
Trichloroethene	0.0225	0.00200	0.0232	0	96.8	70	125			
Trichlorofluoromethane	0.0218	0.00100	0.0232	0	94.1	60	145			
Vinyl chloride	0.0220	0.00100	0.0232	0	94.9	50	145			
Surr: 1,2-Dichloroethane-d4	181		200.0		90.7	70	120			
Surr: 4-Bromofluorobenzene	185		200.0		92.7	75	120			
Surr: Dibromofluoromethane	187		200.0		93.4	85	115			
Surr: Toluene-d8	182		200.0		91.1	85	120			

Sample ID: MB-53759	Batch ID: 53759	TestNo: SW8260C	Units: mg/L							
SampType: MBLK	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 11:01:00 AM Prep Date: 9/10/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	<0.000200	0.00100								
1,1,1-Trichloroethane	<0.000200	0.00100								
1,1,2,2-Tetrachloroethane	<0.000200	0.00100								
1,1,2-Trichloroethane	<0.000200	0.00100								
1,1-Dichloroethane	<0.000200	0.00100								

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

Sample ID: MB-53759	Batch ID: 53759	TestNo: SW8260C	Units: mg/L							
SampType: MBLK	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 11:01:00 AM Prep Date: 9/10/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	<0.000200	0.00100								
1,1-Dichloropropene	<0.000200	0.00100								
1,2,3-Trichlorobenzene	<0.00150	0.00500								
1,2,3-Trichloropropane	<0.000300	0.00100								
1,2,4-Trichlorobenzene	<0.00150	0.00500								
1,2,4-Trimethylbenzene	<0.00150	0.00500								
1,2-Dibromo-3-chloropropane	<0.00300	0.0100								
1,2-Dibromoethane	<0.000200	0.00100								
1,2-Dichlorobenzene	<0.000300	0.00100								
1,2-Dichloroethane	<0.000300	0.00100								
1,2-Dichloropropane	<0.000200	0.00100								
1,3,5-Trimethylbenzene	<0.00150	0.00500								
1,3-Dichlorobenzene	<0.000300	0.00100								
1,3-Dichloropropane	<0.000200	0.00100								
1,4-Dichloro-2-butene	<0.00200	0.00200								
1,4-Dichlorobenzene	<0.000300	0.00100								
2,2-Dichloropropane	<0.000200	0.00100								
2-Butanone	<0.00500	0.0150								
2-Chloroethylvinylether	<0.00500	0.0150								
2-Chlorotoluene	<0.000300	0.00100								
2-Hexanone	<0.00500	0.0150								
4-Chlorotoluene	<0.000300	0.00100								
4-Methyl-2-pentanone	<0.00500	0.0150								
Acetone	<0.00500	0.0150								
Acrylonitrile	<0.00100	0.00300								
Benzene	<0.000200	0.00100								
Bromobenzene	<0.000200	0.00100								
Bromochloromethane	<0.000200	0.00100								
Bromodichloromethane	<0.000200	0.00100								
Bromoform	<0.000200	0.00100								
Bromomethane	<0.000300	0.00100								
Carbon disulfide	<0.00500	0.0150								
Carbon tetrachloride	<0.000200	0.00100								
Chlorobenzene	<0.000200	0.00100								
Chloroethane	<0.000300	0.00100								
Chloroform	<0.000300	0.00100								
Chloromethane	<0.000300	0.00100								
cis-1,2-Dichloroethene	<0.000200	0.00100								
cis-1,3-Dichloropropene	<0.000200	0.00100								
Dibromochloromethane	<0.000200	0.00100								
Dibromomethane	<0.000200	0.00100								

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

Sample ID: MB-53759	Batch ID: 53759	TestNo: SW8260C	Units: mg/L	
SampType: MBLK	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 11:01:00 AM Prep Date: 9/10/2012		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Dichlorodifluoromethane	<0.000200	0.00100		
Ethylbenzene	<0.000300	0.00100		
Iodomethane	<0.00500	0.0150		
Isopropylbenzene	<0.000200	0.00100		
m,p-Xylene	<0.000600	0.00200		
Methyl tert-butyl ether	<0.000300	0.00100		
Methylene chloride	<0.00250	0.00250		
n-Butylbenzene	<0.000300	0.00100		
n-Propylbenzene	<0.000300	0.00100		
o-Xylene	<0.000300	0.00100		
p-Isopropyltoluene	<0.000300	0.00100		
sec-Butylbenzene	<0.000300	0.00100		
Styrene	<0.000200	0.00100		
tert-Butylbenzene	<0.000300	0.00100		
Tetrachloroethene	<0.000600	0.00200		
Toluene	<0.000600	0.00200		
trans-1,2-Dichloroethene	<0.000200	0.00100		
trans-1,3-Dichloropropene	<0.000200	0.00100		
Trichloroethene	<0.000600	0.00200		
Trichlorofluoromethane	<0.000200	0.00100		
Vinyl chloride	<0.000100	0.00100		
Surr: 1,2-Dichloroethane-d4	179	200.0	89.6	70 120
Surr: 4-Bromofluorobenzene	187	200.0	93.7	75 120
Surr: Dibromofluoromethane	185	200.0	92.4	85 115
Surr: Toluene-d8	183	200.0	91.5	85 120

Sample ID: 1209014-01AMS	Batch ID: 53759	TestNo: SW8260C	Units: mg/L
SampType: MS	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 1:56:00 PM Prep Date: 9/10/2012	
Analyte	Result	RL	SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
1,1,1,2-Tetrachloroethane	0.0211	0.00100	0.0232 0 90.9 80 130
1,1,1-Trichloroethane	0.0223	0.00100	0.0232 0 96.0 65 130
1,1,2,2-Tetrachloroethane	0.0226	0.00100	0.0232 0 97.5 65 130
1,1,2-Trichloroethane	0.0231	0.00100	0.0232 0 99.5 75 125
1,1-Dichloroethane	0.0222	0.00100	0.0232 0 95.6 70 135
1,1-Dichloroethene	0.0222	0.00100	0.0232 0 95.6 70 130
1,1-Dichloropropene	0.0228	0.00100	0.0232 0 98.1 75 130
1,2,3-Trichlorobenzene	0.0206	0.00500	0.0232 0 88.6 55 140
1,2,3-Trichloropropane	0.0217	0.00100	0.0232 0 93.6 75 125
1,2,4-Trichlorobenzene	0.0203	0.00500	0.0232 0 87.4 65 135
1,2,4-Trimethylbenzene	0.0219	0.00500	0.0232 0 94.5 75 130

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor

MDL Method Detection Limit

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R RPD outside accepted control limits

S Spike Recovery outside control limits

N Parameter not NELAC certified

**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

Sample ID: 1209014-01AMS	Batch ID: 53759	TestNo: SW8260C		Units:	mg/L					
SampType: MS	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 1:56:00 PM					Prep Date: 9/10/2012			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.0222	0.0100	0.0232	0	95.9	50	130			
1,2-Dibromoethane	0.0222	0.00100	0.0232	0	95.7	80	120			
1,2-Dichlorobenzene	0.0216	0.00100	0.0232	0	93.3	70	120			
1,2-Dichloroethane	0.0221	0.00100	0.0232	0	95.1	70	130			
1,2-Dichloropropane	0.0223	0.00100	0.0232	0	96.0	75	125			
1,3,5-Trimethylbenzene	0.0213	0.00500	0.0232	0	91.8	75	130			
1,3-Dichlorobenzene	0.0212	0.00100	0.0232	0	91.4	75	125			
1,3-Dichloropropane	0.0220	0.00100	0.0232	0	94.6	75	125			
1,4-Dichloro-2-butene	0.0286	0.00200	0.0232	0	123	50	150			
1,4-Dichlorobenzene	0.0208	0.00100	0.0232	0	89.7	75	125			
2,2-Dichloropropane	0.0239	0.00100	0.0232	0	103	70	135			
2-Butanone	0.0230	0.0150	0.0232	0	99.0	30	150			
2-Chloroethylvinylether	<0.00500	0.0150	0.0232	0	0	50	150			S
2-Chlorotoluene	0.0210	0.00100	0.0232	0	90.3	75	125			
2-Hexanone	0.0237	0.0150	0.0232	0	102	55	130			
4-Chlorotoluene	0.0213	0.00100	0.0232	0	91.8	75	130			
4-Methyl-2-pentanone	0.0242	0.0150	0.0232	0	104	60	135			
Acetone	0.0384	0.0150	0.0232	0.0128	110	40	140			
Acrylonitrile	0.0443	0.00300	0.0464	0	95.4	50	150			
Benzene	0.0226	0.00100	0.0232	0	97.5	80	120			
Bromobenzene	0.0208	0.00100	0.0232	0	89.7	75	125			
Bromochloromethane	0.0232	0.00100	0.0232	0	100	65	130			
Bromodichloromethane	0.0225	0.00100	0.0232	0	97.0	75	120			
Bromoform	0.0227	0.00100	0.0232	0	97.8	70	130			
Bromomethane	0.0178	0.00100	0.0232	0	76.5	30	145			
Carbon disulfide	0.0180	0.0150	0.0232	0	77.6	35	160			
Carbon tetrachloride	0.0223	0.00100	0.0232	0	96.1	65	140			
Chlorobenzene	0.0209	0.00100	0.0232	0	90.0	80	120			
Chloroethane	0.0220	0.00100	0.0232	0	95.0	60	135			
Chloroform	0.0222	0.00100	0.0232	0	95.9	65	135			
Chloromethane	0.0201	0.00100	0.0232	0	86.5	40	125			
cis-1,2-Dichloroethene	0.0223	0.00100	0.0232	0	96.0	70	125			
cis-1,3-Dichloropropene	0.0217	0.00100	0.0232	0	93.5	70	130			
Dibromochloromethane	0.0216	0.00100	0.0232	0	93.2	60	135			
Dibromomethane	0.0225	0.00100	0.0232	0	96.9	75	125			
Dichlorodifluoromethane	0.0204	0.00100	0.0232	0	88.1	30	155			
Ethylbenzene	0.0215	0.00100	0.0232	0	92.8	75	125			
Iodomethane	0.0165	0.0150	0.0232	0	71.3	50	150			
Isopropylbenzene	0.0210	0.00100	0.0232	0	90.5	75	125			
m,p-Xylene	0.0442	0.00200	0.0464	0	95.3	75	130			
Methyl tert-butyl ether	0.0232	0.00100	0.0232	0	99.9	65	125			

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

Sample ID: 1209014-01AMS	Batch ID: 53759	TestNo: SW8260C		Units:	mg/L					
SampType: MS	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 1:56:00 PM			Prep Date: 9/10/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	0.0225	0.00250	0.0232	0	96.9	55	140			
n-Butylbenzene	0.0224	0.00100	0.0232	0	96.5	70	135			
n-Propylbenzene	0.0211	0.00100	0.0232	0	90.9	70	130			
o-Xylene	0.0207	0.00100	0.0232	0	89.4	80	120			
p-Isopropyltoluene	0.0219	0.00100	0.0232	0	94.6	75	130			
sec-Butylbenzene	0.0215	0.00100	0.0232	0	92.5	70	125			
Styrene	0.0223	0.00100	0.0232	0	96.0	65	135			
tert-Butylbenzene	0.0218	0.00100	0.0232	0	94.1	70	130			
Tetrachloroethene	0.0216	0.00200	0.0232	0	93.1	45	150			
Toluene	0.0222	0.00200	0.0232	0	95.7	75	120			
trans-1,2-Dichloroethene	0.0221	0.00100	0.0232	0	95.2	60	140			
trans-1,3-Dichloropropene	0.0229	0.00100	0.0232	0	98.5	55	140			
Trichloroethene	0.0210	0.00200	0.0232	0	90.4	70	125			
Trichlorofluoromethane	0.0209	0.00100	0.0232	0	90.0	60	145			
Vinyl chloride	0.0201	0.00100	0.0232	0	86.5	50	145			
Surr: 1,2-Dichloroethane-d4	186		200.0		93.1	70	120			
Surr: 4-Bromofluorobenzene	183		200.0		91.3	75	120			
Surr: Dibromofluoromethane	189		200.0		94.6	85	115			
Surr: Toluene-d8	181		200.0		90.5	85	120			

Sample ID: 1209014-01AMSD	Batch ID: 53759	TestNo: SW8260C		Units:	mg/L					
SampType: MSD	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 2:21:00 PM			Prep Date: 9/10/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0206	0.00100	0.0232	0	88.8	80	130	2.40	30	
1,1,1-Trichloroethane	0.0215	0.00100	0.0232	0	92.7	65	130	3.47	30	
1,1,2,2-Tetrachloroethane	0.0218	0.00100	0.0232	0	94.1	65	130	3.56	30	
1,1,2-Trichloroethane	0.0225	0.00100	0.0232	0	97.0	75	125	2.54	30	
1,1-Dichloroethane	0.0217	0.00100	0.0232	0	93.6	70	135	2.10	30	
1,1-Dichloroethene	0.0220	0.00100	0.0232	0	94.9	70	130	0.769	30	
1,1-Dichloropropene	0.0226	0.00100	0.0232	0	97.5	75	130	0.705	30	
1,2,3-Trichlorobenzene	0.0207	0.00500	0.0232	0	89.1	55	140	0.631	30	
1,2,3-Trichloropropane	0.0211	0.00100	0.0232	0	90.9	75	125	2.90	30	
1,2,4-Trichlorobenzene	0.0203	0.00500	0.0232	0	87.4	65	135	0	30	
1,2,4-Trimethylbenzene	0.0220	0.00500	0.0232	0	94.9	75	130	0.410	30	
1,2-Dibromo-3-chloropropane	0.0209	0.0100	0.0232	0	90.0	50	130	6.36	30	
1,2-Dibromoethane	0.0217	0.00100	0.0232	0	93.4	80	120	2.37	30	
1,2-Dichlorobenzene	0.0214	0.00100	0.0232	0	92.3	70	120	1.07	30	
1,2-Dichloroethane	0.0217	0.00100	0.0232	0	93.5	70	130	1.65	30	
1,2-Dichloropropene	0.0218	0.00100	0.0232	0	94.0	75	125	2.13	30	
1,3,5-Trimethylbenzene	0.0212	0.00500	0.0232	0	91.5	75	130	0.376	30	

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

Sample ID: 1209014-01AMSD	Batch ID: 53759	TestNo: SW8260C		Units: mg/L						
SampType: MSD	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 2:21:00 PM			Prep Date: 9/10/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	0.0211	0.00100	0.0232	0	91.1	75	125	0.378	30	
1,3-Dichloropropane	0.0214	0.00100	0.0232	0	92.1	75	125	2.72	30	
1,4-Dichloro-2-butene	0.0277	0.00200	0.0232	0	119	50	150	3.27	30	
1,4-Dichlorobenzene	0.0207	0.00100	0.0232	0	89.0	75	125	0.772	30	
2,2-Dichloropropane	0.0230	0.00100	0.0232	0	99.3	70	135	3.62	30	
2-Butanone	0.0219	0.0150	0.0232	0	94.2	30	150	4.95	30	
2-Chloroethylvinylether	<0.00500	0.0150	0.0232	0	0	50	150	0	30	S
2-Chlorotoluene	0.0209	0.00100	0.0232	0	90.0	75	125	0.335	30	
2-Hexanone	0.0222	0.0150	0.0232	0	95.6	55	130	6.41	30	
4-Chlorotoluene	0.0214	0.00100	0.0232	0	92.2	75	130	0.422	30	
4-Methyl-2-pentanone	0.0230	0.0150	0.0232	0	99.3	60	135	4.95	30	
Acetone	0.0412	0.0150	0.0232	0.0128	122	40	140	7.07	30	
Acrylonitrile	0.0426	0.00300	0.0464	0	91.7	50	150	3.98	30	
Benzene	0.0222	0.00100	0.0232	0	95.6	80	120	2.01	30	
Bromobenzene	0.0208	0.00100	0.0232	0	89.7	75	125	0.048	30	
Bromochloromethane	0.0226	0.00100	0.0232	0	97.2	65	130	3.01	30	
Bromodichloromethane	0.0219	0.00100	0.0232	0	94.6	75	120	2.52	30	
Bromoform	0.0220	0.00100	0.0232	0	95.0	70	130	2.86	30	
Bromomethane	0.0178	0.00100	0.0232	0	76.8	30	145	0.337	30	
Carbon disulfide	0.0179	0.0150	0.0232	0	77.0	35	160	0.836	30	
Carbon tetrachloride	0.0217	0.00100	0.0232	0	93.5	65	140	2.73	30	
Chlorobenzene	0.0206	0.00100	0.0232	0	88.8	80	120	1.30	30	
Chloroethane	0.0220	0.00100	0.0232	0	94.8	60	135	0.136	30	
Chloroform	0.0215	0.00100	0.0232	0	92.8	65	135	3.29	30	
Chloromethane	0.0195	0.00100	0.0232	0	84.2	40	125	2.68	30	
cis-1,2-Dichloroethene	0.0220	0.00100	0.0232	0	95.0	70	125	0.993	30	
cis-1,3-Dichloropropene	0.0215	0.00100	0.0232	0	92.5	70	130	1.07	30	
Dibromochloromethane	0.0212	0.00100	0.0232	0	91.5	60	135	1.87	30	
Dibromomethane	0.0222	0.00100	0.0232	0	95.8	75	125	1.07	30	
Dichlorodifluoromethane	0.0201	0.00100	0.0232	0	86.6	30	155	1.73	30	
Ethylbenzene	0.0214	0.00100	0.0232	0	92.0	75	125	0.886	30	
Iodomethane	0.0174	0.0150	0.0232	0	74.8	50	150	4.78	30	
Isopropylbenzene	0.0206	0.00100	0.0232	0	88.8	75	125	1.97	30	
m,p-Xylene	0.0433	0.00200	0.0464	0	93.4	75	130	2.08	30	
Methyl tert-butyl ether	0.0227	0.00100	0.0232	0	97.7	65	125	2.27	30	
Methylene chloride	0.0220	0.00250	0.0232	0	94.8	55	140	2.20	30	
n-Butylbenzene	0.0222	0.00100	0.0232	0	95.6	70	135	0.898	30	
n-Propylbenzene	0.0205	0.00100	0.0232	0	88.4	70	130	2.84	30	
o-Xylene	0.0204	0.00100	0.0232	0	87.9	80	120	1.70	30	
p-Isopropyltoluene	0.0219	0.00100	0.0232	0	94.5	75	130	0.045	30	
sec-Butylbenzene	0.0210	0.00100	0.0232	0	90.6	70	125	2.12	30	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

Sample ID: 1209014-01AMSD	Batch ID: 53759	TestNo: SW8260C		Units: mg/L						
SampType: MSD	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 2:21:00 PM			Prep Date: 9/10/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Styrene	0.0210	0.00100	0.0232	0	90.6	65	135	5.78	30	
tert-Butylbenzene	0.0217	0.00100	0.0232	0	93.5	70	130	0.597	30	
Tetrachloroethene	0.0212	0.00200	0.0232	0	91.5	45	150	1.82	30	
Toluene	0.0217	0.00200	0.0232	0	93.5	75	120	2.28	30	
trans-1,2-Dichloroethene	0.0222	0.00100	0.0232	0	95.7	60	140	0.542	30	
trans-1,3-Dichloropropene	0.0225	0.00100	0.0232	0	97.0	55	140	1.59	30	
Trichloroethene	0.0209	0.00200	0.0232	0	89.9	70	125	0.526	30	
Trichlorofluoromethane	0.0206	0.00100	0.0232	0	88.8	60	145	1.30	30	
Vinyl chloride	0.0202	0.00100	0.0232	0	87.0	50	145	0.547	30	
Surr: 1,2-Dichloroethane-d4	182		200.0		91.2	70	120	0	0	
Surr: 4-Bromofluorobenzene	183		200.0		91.7	75	120	0	0	
Surr: Dibromofluoromethane	186		200.0		93.2	85	115	0	0	
Surr: Toluene-d8	179		200.0		89.3	85	120	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

Sample ID: ICV-120910	Batch ID: R62468	TestNo: SW8260C	Units: mg/L							
SampType: ICV	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 10:07:00 AM Prep Date:								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0472	0.00100	0.0464	0	102	80	120			
1,1,1-Trichloroethane	0.0488	0.00100	0.0464	0	105	80	120			
1,1,2,2-Tetrachloroethane	0.0463	0.00100	0.0464	0	99.7	80	120			
1,1,2-Trichloroethane	0.0482	0.00100	0.0464	0	104	80	120			
1,1-Dichloroethane	0.0487	0.00100	0.0464	0	105	80	120			
1,1-Dichloroethene	0.0486	0.00100	0.0464	0	105	80	120			
1,1-Dichloropropene	0.0513	0.00100	0.0464	0	111	80	120			
1,2,3-Trichlorobenzene	0.0438	0.00500	0.0464	0	94.4	80	120			
1,2,3-Trichloropropane	0.0451	0.00100	0.0464	0	97.2	80	120			
1,2,4-Trichlorobenzene	0.0458	0.00500	0.0464	0	98.6	80	120			
1,2,4-Trimethylbenzene	0.0491	0.00500	0.0464	0	106	80	120			
1,2-Dibromo-3-chloropropane	0.0454	0.0100	0.0464	0	97.8	80	120			
1,2-Dibromoethane	0.0478	0.00100	0.0464	0	103	80	120			
1,2-Dichlorobenzene	0.0484	0.00100	0.0464	0	104	80	120			
1,2-Dichloroethane	0.0467	0.00100	0.0464	0	101	80	120			
1,2-Dichloropropane	0.0498	0.00100	0.0464	0	107	80	120			
1,3,5-Trimethylbenzene	0.0475	0.00500	0.0464	0	102	80	120			
1,3-Dichlorobenzene	0.0474	0.00100	0.0464	0	102	80	120			
1,3-Dichloropropane	0.0463	0.00100	0.0464	0	99.9	80	120			
1,4-Dichloro-2-butene	0.0609	0.00200	0.0464	0	131	80	120			S
1,4-Dichlorobenzene	0.0452	0.00100	0.0464	0	97.3	80	120			
2,2-Dichloropropane	0.0589	0.00100	0.0464	0	127	80	120			S
2-Butanone	0.0448	0.0150	0.0464	0	96.5	80	120			
2-Chloroethylvinylether	0.0471	0.0150	0.0464	0	101	80	120			
2-Chlorotoluene	0.0465	0.00100	0.0464	0	100	80	120			
2-Hexanone	0.0427	0.0150	0.0464	0	92.0	80	120			
4-Chlorotoluene	0.0481	0.00100	0.0464	0	104	80	120			
4-Methyl-2-pentanone	0.0436	0.0150	0.0464	0	94.0	80	120			
Acetone	0.0472	0.0150	0.0464	0	102	80	120			
Acrylonitrile	0.0918	0.00300	0.0928	0	99.0	60	140			
Benzene	0.0491	0.00100	0.0464	0	106	80	120			
Bromobenzene	0.0472	0.00100	0.0464	0	102	80	120			
Bromochloromethane	0.0496	0.00100	0.0464	0	107	80	120			
Bromodichloromethane	0.0491	0.00100	0.0464	0	106	80	120			
Bromoform	0.0501	0.00100	0.0464	0	108	80	120			
Bromomethane	0.0419	0.00100	0.0464	0	90.3	80	120			
Carbon disulfide	0.0398	0.0150	0.0464	0	85.7	80	120			
Carbon tetrachloride	0.0498	0.00100	0.0464	0	107	80	120			
Chlorobenzene	0.0453	0.00100	0.0464	0	97.6	80	120			
Chloroethane	0.0468	0.00100	0.0464	0	101	80	120			
Chloroform	0.0481	0.00100	0.0464	0	104	80	120			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** GCMS5\_120910A

Sample ID: ICV-120910	Batch ID: R62468	TestNo: SW8260C	Units: mg/L							
SampType: ICV	Run ID: GCMS5_120910A	Analysis Date: 9/10/2012 10:07:00 AM Prep Date:								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloromethane	0.0432	0.00100	0.0464	0	93.1	80	120			
cis-1,2-Dichloroethene	0.0509	0.00100	0.0464	0	110	80	120			
cis-1,3-Dichloropropene	0.0521	0.00100	0.0464	0	112	80	120			
Dibromochloromethane	0.0478	0.00100	0.0464	0	103	80	120			
Dibromomethane	0.0488	0.00100	0.0464	0	105	80	120			
Dichlorodifluoromethane	0.0450	0.00100	0.0464	0	97.1	80	120			
Ethylbenzene	0.0470	0.00100	0.0464	0	101	80	120			
Iodomethane	0.0486	0.0150	0.0464	0	105	80	120			
Isopropylbenzene	0.0468	0.00100	0.0464	0	101	80	120			
m,p-Xylene	0.0987	0.00200	0.0928	0	106	80	120			
Methyl tert-butyl ether	0.0530	0.00100	0.0464	0	114	80	120			
Methylene chloride	0.0490	0.00250	0.0464	0	106	80	120			
n-Butylbenzene	0.0520	0.00100	0.0464	0	112	80	120			
n-Propylbenzene	0.0468	0.00100	0.0464	0	101	80	120			
o-Xylene	0.0462	0.00100	0.0464	0	99.7	80	120			
p-Isopropyltoluene	0.0508	0.00100	0.0464	0	110	80	120			
sec-Butylbenzene	0.0482	0.00100	0.0464	0	104	80	120			
Styrene	0.0505	0.00100	0.0464	0	109	80	120			
tert-Butylbenzene	0.0493	0.00100	0.0464	0	106	80	120			
Tetrachloroethene	0.0482	0.00200	0.0464	0	104	80	120			
Toluene	0.0488	0.00200	0.0464	0	105	80	120			
trans-1,2-Dichloroethene	0.0502	0.00100	0.0464	0	108	80	120			
trans-1,3-Dichloropropene	0.0537	0.00100	0.0464	0	116	80	120			
Trichloroethene	0.0460	0.00200	0.0464	0	99.0	80	120			
Trichlorofluoromethane	0.0455	0.00100	0.0464	0	98.1	80	120			
Vinyl chloride	0.0449	0.00100	0.0464	0	96.7	80	120			
Surr: 1,2-Dichloroethane-d4	184		200.0		92.2	70	120			
Surr: 4-Bromofluorobenzene	184		200.0		92.0	75	120			
Surr: Dibromofluoromethane	188		200.0		93.8	85	115			
Surr: Toluene-d8	182		200.0		91.2	85	120			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** TITRATOR\_120906A

The QC data in batch 53717 applies to the following samples: 1209022-01D, 1209022-03D, 1209022-04D, 1209022-05D

Sample ID: 1209022-01D DUP	Batch ID: 53717	TestNo: M4500-H+ B	Units: pH Units
SampType: DUP	Run ID: TITRATOR_120906A	Analysis Date: 9/6/2012 10:00:00 AM	Prep Date: 9/6/2012
Analyte	Result	RL	SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
pH	7.43	0	0 7.450 0.269 5

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** TITRATOR\_120906A

Sample ID: ICV-120906	Batch ID: R62396	TestNo: M4500-H+ B	Units: pH Units							
SampType: ICV	Run ID: TITRATOR_120906A	Analysis Date: 9/6/2012 9:57:00 AM	Prep Date: 9/6/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	10.0	0	10.00	0	100	99	101			
Sample ID: CCV-120906	Batch ID: R62396	TestNo: M4500-H+ B	Units: pH Units							
SampType: CCV	Run ID: TITRATOR_120906A	Analysis Date: 9/6/2012 10:05:00 AM	Prep Date: 9/6/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.03	0	7.000	0	100	97.1	102.9			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** TOC\_120919A

The QC data in batch 53818 applies to the following samples: 1209022-01B, 1209022-03B, 1209022-04B, 1209022-05B

Sample ID: LCS-53818	Batch ID: 53818	TestNo: M5310C	Units: mg/L							
SampType: LCS	Run ID: TOC_120919A	Analysis Date: 9/19/2012 10:37:00 AM	Prep Date: 9/19/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	9.19	1.00	10.00	0	91.9	80	120			
Sample ID: MB-53818	Batch ID: 53818	TestNo: M5310C	Units: mg/L							
SampType: MBLK	Run ID: TOC_120919A	Analysis Date: 9/19/2012 10:56:00 AM	Prep Date: 9/19/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	<0.300	1.00								
Sample ID: 1209022-03B MS	Batch ID: 53818	TestNo: M5310C	Units: mg/L							
SampType: MS	Run ID: TOC_120919A	Analysis Date: 9/19/2012 2:59:00 PM	Prep Date: 9/19/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	20.1	2.00	20.00	1.558	92.6	80	120			
Sample ID: 1209022-03B MSD	Batch ID: 53818	TestNo: M5310C	Units: mg/L							
SampType: MSD	Run ID: TOC_120919A	Analysis Date: 9/19/2012 3:25:00 PM	Prep Date: 9/19/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	20.3	2.00	20.00	1.558	93.6	80	120	0.987	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** TOC\_120919A

Sample ID: ICV-120919	Batch ID: R62622	TestNo:	M5310C	Units:	mg/L					
SampType: ICV	Run ID: TOC_120919A	Analysis Date: 9/19/2012 10:16:00 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	14.7	1.00	15.00	0	98.1	90	110			
Sample ID: CCV-120919	Batch ID: R62622	TestNo:	M5310C	Units:	mg/L					
SampType: CCV	Run ID: TOC_120919A	Analysis Date: 9/19/2012 2:11:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	10.0	1.00	10.00	0	100	80	120			
Sample ID: CCV-120919	Batch ID: R62622	TestNo:	M5310C	Units:	mg/L					
SampType: CCV	Run ID: TOC_120919A	Analysis Date: 9/19/2012 3:46:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	9.94	1.00	10.00	0	99.4	80	120			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** UV/VIS\_2\_120906A

The QC data in batch 53695 applies to the following samples: 1209022-01D, 1209022-03D, 1209022-04D, 1209022-05D

Sample ID: MB-53695	Batch ID: 53695	TestNo: M3500-Cr D	Units: mg/L							
SampType: MBLK	Run ID: UV/VIS_2_120906A	Analysis Date: 9/6/2012 10:12:00 AM	Prep Date: 9/6/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	<0.00800	0.0100								
Sample ID: LCS-53695	Batch ID: 53695	TestNo: M3500-Cr D	Units: mg/L							
SampType: LCS	Run ID: UV/VIS_2_120906A	Analysis Date: 9/6/2012 10:12:00 AM	Prep Date: 9/6/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.0984	0.0100	0.100	0	98.4	85	115			
Sample ID: LCSD-53695	Batch ID: 53695	TestNo: M3500-Cr D	Units: mg/L							
SampType: LCSD	Run ID: UV/VIS_2_120906A	Analysis Date: 9/6/2012 10:16:00 AM	Prep Date: 9/6/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.102	0.0100	0.100	0	102	85	115	3.48	15	
Sample ID: 1209022-05D MS	Batch ID: 53695	TestNo: M3500-Cr D	Units: mg/L							
SampType: MS	Run ID: UV/VIS_2_120906A	Analysis Date: 9/6/2012 10:35:00 AM	Prep Date: 9/6/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.104	0.0100	0.100	0	104	85	115			
Sample ID: 1209022-05D MSD	Batch ID: 53695	TestNo: M3500-Cr D	Units: mg/L							
SampType: MSD	Run ID: UV/VIS_2_120906A	Analysis Date: 9/6/2012 10:35:00 AM	Prep Date: 9/6/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.109	0.0100	0.100	0	109	85	115	4.61	15	

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**CLIENT:** Zia Engineering & Environmental  
**Work Order:** 1209022  
**Project:** HELSTF Diesel Spill

## ANALYTICAL QC SUMMARY REPORT

**RunID:** UV/VIS\_2\_120906A

Sample ID: ICV-120906	Batch ID: R62395	TestNo: M3500-Cr D	Units: mg/L							
SampType: ICV	Run ID: UV/VIS_2_120906A	Analysis Date: 9/6/2012 10:12:00 AM	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.101	0.0100	0.100	0	101	90	110			
Sample ID: CCV1-120906	Batch ID: R62395	TestNo: M3500-Cr D	Units: mg/L							
SampType: CCV	Run ID: UV/VIS_2_120906A	Analysis Date: 9/6/2012 10:35:00 AM	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.195	0.0100	0.200	0	97.4	90	110			
Sample ID: CCV2-120906	Batch ID: R62395	TestNo: M3500-Cr D	Units: mg/L							
SampType: CCV	Run ID: UV/VIS_2_120906A	Analysis Date: 9/6/2012 10:35:00 AM	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.195	0.0100	0.200	0	97.5	90	110			

**Qualifiers:** B Analyte detected in the associated Method Blank  
J Analyte detected between MDL and RL  
ND Not Detected at the Method Detection Limit  
RL Reporting Limit  
J Analyte detected between SDL and RL

DF Dilution Factor  
MDL Method Detection Limit  
R RPD outside accepted control limits  
S Spike Recovery outside control limits  
N Parameter not NELAC certified

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**Lab Order:** 1209022  
**Client:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill

## Sequence Report

### Run ID: GC15\_120909A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120909	-----	M8015D	R62452	1	9/9/2012 7:19:02 PM		A
LCS-53724	-----	M8015D	53724	1	9/9/2012 7:31:12 PM	9/7/2012 8:43:30 AM	A
MB-53724	-----	M8015D	53724	1	9/9/2012 8:07:08 PM	9/7/2012 8:43:30 AM	A
1209022-01E	HLSF-0154-DRW-016-0912	M8015D	53724	1	9/9/2012 8:43:01 PM	9/7/2012 8:43:30 AM	A
1209022-03E	HLSF-0154-DRW-012-0912	M8015D	53724	1	9/9/2012 8:51:59 PM	9/7/2012 8:43:30 AM	A
1209022-04E	HLSF-0154-DRW-112-0912	M8015D	53724	1	9/9/2012 9:00:56 PM	9/7/2012 8:43:30 AM	A
CCV1-120909	-----	M8015D	R62452	1	9/9/2012 9:18:52 PM		A
1209022-05E	HLSF-0154-DRW-013-0912	M8015D	53724	1	9/9/2012 9:36:46 PM	9/7/2012 8:43:30 AM	A
CCV2-120909	-----	M8015D	R62452	1	9/9/2012 11:15:31 PM		A
1209014-01HMS	-----	M8015D	53724	1	9/9/2012 11:42:24 PM	9/7/2012 8:43:30 AM	A
1209014-01HMSD	-----	M8015D	53724	1	9/9/2012 11:51:21 PM	9/7/2012 8:43:30 AM	A
CCV3-120909	-----	M8015D	R62452	1	9/10/2012 12:00:22 AM		A

### Run ID: GCMS5\_120910A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120910	-----	SW8260C	R62468	1	9/10/2012 10:07:00 AM		A
LCS-53759	-----	SW8260C	53759	1	9/10/2012 10:35:00 AM	9/10/2012 10:15:06 AM	A
MB-53759	-----	SW8260C	53759	1	9/10/2012 11:01:00 AM	9/10/2012 10:15:06 AM	A
1209014-01AMS	-----	SW8260C	53759	1	9/10/2012 1:56:00 PM	9/10/2012 10:15:06 AM	A
1209014-01AMSD	-----	SW8260C	53759	1	9/10/2012 2:21:00 PM	9/10/2012 10:15:06 AM	A
1209022-01A	HLSF-0154-DRW-016-0912	SW8260C	53759	1	9/10/2012 3:11:00 PM	9/10/2012 10:15:06 AM	A
1209022-02A	HLSF-0154-DRW-016-0912-TB	SW8260C	53759	1	9/10/2012 3:36:00 PM	9/10/2012 10:15:06 AM	T
1209022-03A	HLSF-0154-DRW-012-0912	SW8260C	53759	1	9/10/2012 4:01:00 PM	9/10/2012 10:15:06 AM	A
1209022-04A	HLSF-0154-DRW-112-0912	SW8260C	53759	1	9/10/2012 4:25:00 PM	9/10/2012 10:15:06 AM	A
1209022-05A	HLSF-0154-DRW-013-0912	SW8260C	53759	1	9/10/2012 4:51:00 PM	9/10/2012 10:15:06 AM	A
1209022-06A	HLSF-0154-FB-001-0912	SW8260C	53759	1	9/10/2012 5:16:00 PM	9/10/2012 10:15:06 AM	F

**Lab Order:** 1209022  
**Client:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill

**Sequence Report****Run ID: ICP-MS2\_120913C**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
BLANK STD 1	-----	SW6020	R62552	1	9/13/2012 11:43:00 AM		A
1 & 20ppb std 2	-----	SW6020	R62552	1	9/13/2012 11:49:00 AM		A
10 & 200ppb std 3	-----	SW6020	R62552	1	9/13/2012 11:55:00 AM		A
250 & 5000ppb std 4	-----	SW6020	R62552	1	9/13/2012 12:01:00 PM		A
500 & 10000ppb std	-----	SW6020	R62552	1	9/13/2012 12:07:00 PM		A
2000 ppb std 6	-----	SW6020	R62552	1	9/13/2012 12:12:00 PM		A
ICV1-120913	-----	SW6020	R62552	1	9/13/2012 1:02:00 PM		A
ICB1-120913	-----	SW6020	R62552	1	9/13/2012 1:30:00 PM		A
MB-53793	-----	SW6020	53793	1	9/13/2012 1:36:00 PM	9/12/2012 8:54:19 AM	A
LCS-53793	-----	SW6020	53793	1	9/13/2012 2:30:00 PM	9/12/2012 8:54:19 AM	A
LCSD-53793	-----	SW6020	53793	1	9/13/2012 2:36:00 PM	9/12/2012 8:54:19 AM	A
1209014-01D SD	-----	SW6020	53793	500	9/13/2012 2:54:00 PM	9/12/2012 8:54:19 AM	A
1209022-01C	HLSF-0154-DRW-016-0912	SW6020	53793	50	9/13/2012 3:06:00 PM	9/12/2012 8:54:19 AM	A
1209022-03C	HLSF-0154-DRW-012-0912	SW6020	53793	1	9/13/2012 3:12:00 PM	9/12/2012 8:54:19 AM	A
1209022-04C	HLSF-0154-DRW-112-0912	SW6020	53793	1	9/13/2012 3:18:00 PM	9/12/2012 8:54:19 AM	A
1209022-05C	HLSF-0154-DRW-013-0912	SW6020	53793	1	9/13/2012 3:23:00 PM	9/12/2012 8:54:19 AM	A
1209014-01D PDS	-----	SW6020	53793	100	9/13/2012 3:41:00 PM	9/12/2012 8:54:19 AM	A
1209014-01D MS	-----	SW6020	53793	100	9/13/2012 3:47:00 PM	9/12/2012 8:54:19 AM	A
1209014-01D MSD	-----	SW6020	53793	100	9/13/2012 3:53:00 PM	9/12/2012 8:54:19 AM	A
CCV1-120913	-----	SW6020	R62552	1	9/13/2012 4:05:00 PM		A

**Lab Order:** 1209022  
**Client:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill

**Sequence Report****Run ID: ICP-MS3\_120914A**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
BLANK STD 1	-----	SW6020	R62568	1	9/14/2012 10:52:00 AM		A
1/20 ppb STD.	-----	SW6020	R62568	1	9/14/2012 10:57:00 AM		A
10/200 ppb STD.	-----	SW6020	R62568	1	9/14/2012 11:03:00 AM		A
250/5000 ppb STD.	-----	SW6020	R62568	1	9/14/2012 11:09:00 AM		A
500/10000 ppb STD.	-----	SW6020	R62568	1	9/14/2012 11:14:00 AM		A
2000/25000 ppb ST	-----	SW6020	R62568	1	9/14/2012 11:20:00 AM		A
ICV1-120914	-----	SW6020	R62568	1	9/14/2012 12:15:00 PM		A
ICB1-120914	-----	SW6020	R62568	1	9/14/2012 12:34:00 PM		A
CCV1-120914	-----	SW6020	R62568	1	9/14/2012 1:51:00 PM		A
CCB1-120914	-----	SW6020	R62568	1	9/14/2012 2:21:00 PM		A
1209014-01D SD	-----	SW6020	53793	5	9/14/2012 2:33:00 PM	9/12/2012 8:54:19 AM	A
1209022-03C	HLSF-0154-DRW-012-0912	SW6020	53793	50	9/14/2012 2:38:00 PM	9/12/2012 8:54:19 AM	A
1209022-04C	HLSF-0154-DRW-112-0912	SW6020	53793	50	9/14/2012 2:44:00 PM	9/12/2012 8:54:19 AM	A
1209022-05C	HLSF-0154-DRW-013-0912	SW6020	53793	5	9/14/2012 2:49:00 PM	9/12/2012 8:54:19 AM	A
1209014-01D PDS	-----	SW6020	53793	1	9/14/2012 3:01:00 PM	9/12/2012 8:54:19 AM	A
1209014-01D MS	-----	SW6020	53793	1	9/14/2012 3:06:00 PM	9/12/2012 8:54:19 AM	A
1209014-01D MSD	-----	SW6020	53793	1	9/14/2012 3:19:00 PM	9/12/2012 8:54:19 AM	A
CCV2-120914	-----	SW6020	R62568	1	9/14/2012 3:31:00 PM		A
CCB2-120914	-----	SW6020	R62568	1	9/14/2012 4:01:00 PM		A
CCB3-120914	-----	SW6020	R62568	1	9/14/2012 6:35:00 PM		A

**Run ID: TITRATOR\_120906A**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV2-120906	-----	M4500-H+ B	R62396	1	9/6/2012 9:55:00 AM	9/6/2012 9:55:00 AM	A
ICV1-120906	-----	M4500-H+ B	R62396	1	9/6/2012 9:56:00 AM	9/6/2012 9:56:00 AM	A
ICV-120906	-----	M4500-H+ B	R62396	1	9/6/2012 9:57:00 AM	9/6/2012 9:57:00 AM	A
1209022-01D	HLSF-0154-DRW-016-0912	M4500-H+ B	53717	1	9/6/2012 9:58:00 AM	9/6/2012 9:45:00 AM	A
1209022-01D DUP	HLSF-0154-DRW-016-0912PD9	M4500-H+ B	53717	1	9/6/2012 10:00:00 AM	9/6/2012 9:45:00 AM	A
1209022-03D	HLSF-0154-DRW-012-0912	M4500-H+ B	53717	1	9/6/2012 10:02:00 AM	9/6/2012 9:45:00 AM	A
1209022-04D	HLSF-0154-DRW-112-0912	M4500-H+ B	53717	1	9/6/2012 10:03:00 AM	9/6/2012 9:45:00 AM	A
1209022-05D	HLSF-0154-DRW-013-0912	M4500-H+ B	53717	1	9/6/2012 10:04:00 AM	9/6/2012 9:45:00 AM	A
CCV-120906	-----	M4500-H+ B	R62396	1	9/6/2012 10:05:00 AM	9/6/2012 10:05:00 AM	A

**Lab Order:** 1209022  
**Client:** Zia Engineering & Environmental  
**Project:** HELSTF Diesel Spill

## Sequence Report

### Run ID: TOC\_120919A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120919	-----	M5310C	R62622	1	9/19/2012 10:16:00 AM		A
LCS-53818	-----	M5310C	53818	1	9/19/2012 10:37:00 AM	9/19/2012 9:58:32 AM	A
MB-53818	-----	M5310C	53818	1	9/19/2012 10:56:00 AM	9/19/2012 9:58:32 AM	A
1209022-01B	HLSF-0154-DRW-016-0912	M5310C	53818	2	9/19/2012 11:58:00 AM	9/19/2012 9:58:32 AM	A
1209022-03B	HLSF-0154-DRW-012-0912	M5310C	53818	2	9/19/2012 12:24:00 PM	9/19/2012 9:58:32 AM	A
1209022-04B	HLSF-0154-DRW-112-0912	M5310C	53818	2	9/19/2012 12:50:00 PM	9/19/2012 9:58:32 AM	A
1209022-05B	HLSF-0154-DRW-013-0912	M5310C	53818	2	9/19/2012 1:12:00 PM	9/19/2012 9:58:32 AM	A
CCV-120919	-----	M5310C	R62622	1	9/19/2012 2:11:00 PM		A
1209022-03B MS	HLSF-0154-DRW-012-0912MS	M5310C	53818	2	9/19/2012 2:59:00 PM	9/19/2012 9:58:32 AM	A
1209022-03B MSD	HLSF-0154-DRW-012-	M5310C	53818	2	9/19/2012 3:25:00 PM	9/19/2012 9:58:32 AM	A
CCV-120919	-----	M5310C	R62622	1	9/19/2012 3:46:00 PM		A

### Run ID: UV/VIS\_2\_120906A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120906	-----	M3500-Cr D	R62395	1	9/6/2012 10:12:00 AM		A
MB-53695	-----	M3500-Cr D	53695	1	9/6/2012 10:12:00 AM	9/6/2012 8:35:00 AM	A
LCS-53695	-----	M3500-Cr D	53695	1	9/6/2012 10:12:00 AM	9/6/2012 8:35:00 AM	A
LCSD-53695	-----	M3500-Cr D	53695	1	9/6/2012 10:16:00 AM	9/6/2012 8:35:00 AM	A
1209022-01D	HLSF-0154-DRW-016-0912	M3500-Cr D	53695	1	9/6/2012 10:28:00 AM	9/6/2012 8:35:00 AM	A
1209022-03D	HLSF-0154-DRW-012-0912	M3500-Cr D	53695	1	9/6/2012 10:29:00 AM	9/6/2012 8:35:00 AM	A
1209022-04D	HLSF-0154-DRW-112-0912	M3500-Cr D	53695	1	9/6/2012 10:29:00 AM	9/6/2012 8:35:00 AM	A
1209022-05D	HLSF-0154-DRW-013-0912	M3500-Cr D	53695	1	9/6/2012 10:29:00 AM	9/6/2012 8:35:00 AM	A
1209022-05D MS	HLSF-0154-DRW-013-0912MS	M3500-Cr D	53695	1	9/6/2012 10:35:00 AM	9/6/2012 8:35:00 AM	A
CCV1-120906	-----	M3500-Cr D	R62395	1	9/6/2012 10:35:00 AM		A
1209022-05D MSD	HLSF-0154-DRW-013-	M3500-Cr D	53695	1	9/6/2012 10:35:00 AM	9/6/2012 8:35:00 AM	A
CCV2-120906	-----	M3500-Cr D	R62395	1	9/6/2012 10:35:00 AM		A